Public Utility Commission of Texas
7800 Shoal Creek Boulevard · Suite 400N
Austin, Texas 78757 · 512/458-0100

Jo Campbell
Commissioner

Marta Greytok
Commissioner

Paul D. Meek
Chairman

January 14, 1991

Honorable Members of the Seventy-Second Texas Legislature:

As required by the Public Utility Regulatory Act, the Public Utility Commission of Texas is pleased to submit to you our biennial report on the Status of Competition in Long-Distance and Local Telecommunications Markets in Texas. This report addresses the scope of telecommunications competition in the State and the impact of competition on customers in both competitive and noncompetitive markets, with special focus on rural markets.

The telecommunications industry in Texas is a dynamic, complex and healthy one, touching the lives of all residents of our state and employing more than 50,000 Texans currently. Its rapidly evolving regulatory and technological environment continues to demand significant attention and resources. Yet, the PUC continues to meet the challenges presented in providing universal service and assuring competition in the telecommunications industry.

This report is intended to provide you useful information about the current scope and effect of competition in Texas' telecommunications markets. As you are called upon to further review and make decisions relating to this subject, please feel free to call on the PUC for any additional information and assistance you may need.

We look forward to working with you to ensure that competition in these markets continues to grow and that its benefits are enjoyed by both providers and consumers of telecommunications services in Texas.

Sincerely,

Paul D.Meek
Chairman

STATUS OF COMPETITION IN LONG-DISTANCE AND LOCAL TELECOMMUNICATIONS MARKETS IN TEXAS

PUBLIC UTILITY COMMISSION OF TEXAS

January 14, 1991

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I. EXECUTIVE SUMMARY

The Long-Distance Market

Long-distance telecommunications service is provided in Texas by more than 140 carriers, called interexchange carriers (IXCs). Only "dominant carriers" are subject to the full regulatory authority of the Public Utility Commission (PUC). A dominant carrier is one which possesses sufficient market power to permit it to control price in a way that would harm the public interest.

One IXC, AT&T, has been found by the PUC to be a dominant carrier. The rates that AT&T charges are therefore regulated by the Commission. AT&T's market share, measured in terms of industry intrastate revenue, is less than 65 percent. At the beginning of 1986, AT&T's market share was more than 77 percent.

Other IXCs (called other common carriers, or OCCs) charge rates which are not regulated by the Commission. These carriers are required to register with the Commission, to file reports, and to charge statewide average rates.

The number of OCCs in Texas tends to exaggerate the amount of competition in the long-distance market. Until June 20, 1990, a provision in the access tariffs of local exchange carriers (LECs) permitted resellers of long-distance service to pay lower access charges for use of the facilities of LECs. Some IXCs benefitted from this tariff provision, called the WATS prorate credit, by forming additional companies to resell long-distance service. The WATS prorate credit issue was resolved by the Commission on June 20, 1990. As a result, the number of IXCs in the Texas market may fall.

The Seventy-First Legislature, in HB 174, gave the PUC two important mandates:

First, the Legislature directed the PUC to undertake regulation of the practices of operator service providers. The Commission adopted a rule in 1989 which provides important protection for consumers of operator services.

HB 174 also directed the Commission to establish a Dual-Party Relay Service for the hearing-and speech-impaired. This service, called Relay Texas, carried its first call on September 1, 1990. In November 1990 the service relayed 79,000 calls between the hearing community and persons with telecommunications devices for the deaf (TDDs).

The Local Telecommunications Market

To provide local exchange telecommunications service, a carrier must obtain a certificate of convenience and necessity (CCN) from the Commission to serve an area of the state. Fifty-nine LECs operate in Texas.

Southwestern Bell (SWB) is overwhelmingly the largest LEC in Texas. In January 1989 the Commission began an inquiry into SWB's rates. The rate case was concluded in November 1990, when the Commission ordered the company to lower its rates and to undertake extensive network and service improvements. The package of rate, and network changes will reduce the company's revenue by $1.2 billion.

As a result of the final order in this case, local and long-distance telephone charges will be reduced for millions of Texans. In addition, 32 communities will have access to Extended Metropolitan Service (EMS), which will permit toll-free calling into nearby metropolitan areas for a flat monthly fee. Southwestern Bell customers have already begun receiving $87.5 million in credits on their phone bills.

Protecting the interests of monopoly customers, such as the residential customers of the LECs, is a challenge for regulators in a competitive environment. Competition is a growing force in the local exchange industry. Protecting the public interest involves finding the proper balance between the benefits of competition, which often accrue to a few, and the goal of universal service, which benefits all Texans.

II. COMPETITION IN LONG-DISTANCE TELECOMMUNICATIONS

American Telephone and Telegraph Company (AT&T) has never held an exclusive franchise for the provision of long-distance telephone service, yet the company provided virtually all such service until recent years. The last two decades have seen the introduction and steady growth of competition in the industry. From the time of one of the early challenges to the market position of AT&T, when a Federal Communications Commission (FCC) ruling permitted Microwave Communications, Inc. (MCI) to provide private line service between Chicago and St. Louis, both technological advancements and regulatory policy have had the effect of promoting competition. Our task in this report is to assess the current status of competition in the long-distance industry in Texas.

A. HISTORICAL BACKGROUND

1. Federal Regulatory Changes

Beginning in 1959, the FCC and the federal courts made a number of rulings that permitted competition as we know it today in the telecommunications industry. In that year, the FCC concluded in its "Above 890" decision that radio frequencies above 890 megacycles would not be reserved for common carriers alone, and that customers or private carriers could establish their own networks as long as they met the necessary technical criteria. This enabled customers of the telephone company to provide themselves with services formerly provided only by AT&T.

In 1969, after six years of proceedings, the FCC granted MCI's request to be authorized to provide private line service between Chicago and St. Louis. Two years later, the FCC's Specialized Common Carrier decision opened the provision of such private line services to other carriers as well. (Note: In this report, the long-distance carriers other than AT&T are often referred to as Other Common Carriers, or OCCs. The term Interexchange Carriers, or IXCs, refers to all the long-distance providers, including AT&T.) During the 1970s, MCI expanded its offerings, and initiated a voice telecommunications service called Execunet, which used private branch exchanges (PBXs) to gather traffic that was transmitted over its private lines. Although the FCC determined in 1976 that Execunet was a type of switched voice or message service that MCI was not authorized to provide, the U.S. Court of Appeals overturned that decision. After the court's decision, the long-distance telecommunications market would no longer be served by a single provider.

The structure of the telecommunications industry was also changed by divestiture, which ended AT&T's common ownership of equipment manufacturing interests, local exchange companies, and long-distance service. On January 1, 1984, pursuant to a federal consent decree known as the Modified Final Judgment (MFJ) ordered by U.S. District

Judge Harold Greene, AT&T divested itself of the local exchange companies, i.e., the Regional Bell Operating Companies (RBOCs). AT&T kept Bell Labs, the research entity; Western Electric, the equipment manufacturing arm; and AT&T Information Systems, the customer premises equipment provider. AT&T Information Systems eventually merged into AT&T Communications, the long-distance company. AT&T's current name in Texas is AT&T Communications of the Southwest, Inc.

The RBOCs were directed to convert their end offices to provide equal access: that is, access to their local networks equal to AT&T's access in type, quality and price for all IXCs. The consent decree established geographic areas called local access and transport areas (LATAs) that delineated the areas within which the RBOCs could serve. AT&T and the RBOCs entered into agreements regarding the transfer of RBOC facilities to AT&T for the provision of interLATA services. Subsidiaries of GTE Corporation (GTE), such as GTE Southwest (GTESW), which serves in Texas, are the next largest group of local exchange carriers (LECs) after the RBOCs. Under a separate consent decree, in connection with its 1983 acquisition of the predecessor company to US Sprint, GTE was required to offer equal access in many of its end offices. This consent decree called for the creation of geographic areas called special marketing areas, (SMAs) in the GTE service area. SMAs serve the same purpose as LATAs. For convenience, in this report LATA is used as a generic term referring to either a LATA or an SMA. (See Exhibit II-A for a map of Texas LATAs and SMAs.) The FCC also established guidelines for the provision of equal access by other independent LECs. (The "independents" consist of all LECs except the RBOCs.)

AT&T's interstate long-distance rates are regulated by the FCC. The FCC has chosen not to regulate the OCCs' interstate rates. After divestiture, the FCC continued to apply traditional rate-of-return regulation to AT&T, which it regulated as a "dominant" carrier, i.e. a carrier possessing market power which could be used to harm the public interest. In 1987, the FCC initiated a rulemaking proceeding to reexamine its use of rate-of-return regulation for dominant carriers. This type of regulation, the FCC felt, did not encourage carriers to operate efficiently, lower their service costs and offer lower rates to consumers. This rulemaking proceeding led to the adoption of price cap regulation of AT&T effective July 1, 1989. Under price cap regulation, services offered by the company are grouped into three "baskets": 800 service, business services, and the services used primarily by residences and small businesses. The company is permitted to make price changes within the price cap rules with streamlined review. Each basket has a price cap which may not be exceeded without more extensive tariff review.

In April 1990 the FCC initiated another rulemaking proceeding to further relax its regulation of AT&T. Citing a progression of technological and regulatory changes, the FCC proposed to further relax its tariff review for services in the business services basket. The FCC proposal stated that structural barriers remaining in the 800 service market make deregulation inappropriate at this time. (Since current network facilities do not permit a

customer "number portability"--the ability to change its 800 service provider without changing its 800 number--the FCC recommended continuation of price cap regulation for this service for the time being.) The proposal further recommended continuation of price caps for the residential/small business service basket until 1993, when AT&T's experience under price caps is reviewed.

2. Developments at the State Level

Prior to 1984, Southwestern Bell (SWB), then a subsidiary of AT&T, provided intrastate local exchange and interexchange service within Texas. After the Public Utility Commission (PUC) was created in 1975, it regulated both types of service through its regulation of SWB. The Commission did not regulate the OCCs.

MCI began offering private line service in Texas in 1975 and basic long-distance service (message telecommunications service, or MTS) in 1976. Soon afterward, a predecessor of US Sprint began providing interexchange service in Texas. Today there are more than 140 OCCs serving in Texas.

The setting of rates for intrastate long-distance and access to the local network falls under the jurisdiction of each state. In Texas, the PUC is vested with the authority to regulate telecommunications utilities according to the Public Utility Regulatory Act (PURA).

In 1983 amendments to the PURA, the Texas Legislature addressed Commission regulation of telecommunications in the post-divestiture era. The following language was added to Section 18(a):

> The legislature finds that the telecommunications industry through technical advancements, federal judicial and administrative actions, and the formulation of new telecommunications enterprises has become and will continue to be in many and growing areas a competitive industry which does not lend itself to traditional public utility regulatory rules, policies, and principles; and that therefore, the public interest requires that new rules, policies and principles be formulated and applied to protect the public interest and to provide equal opportunity to all telecommunications utilities in a competitive marketplace. It is the purpose of this section to grant to the commission the authority and the power under this Act to carry out the public policy herein stated.

These amendments also gave the Commission full jurisdiction, including authority to set rates, over any dominant carrier of communications services. The Commission later determined that this term included AT&T.

In 1987, the Seventieth Legislature adopted amendments to PURA that directed the Commission to define service markets and to decide if any IXC is dominant as to any service market (Section 100(b)). This section further authorizes the Commission to classify services as fully regulated, regulated competitive, or unregulated.

In November 1987, the commission's general counsel initiated a market dominance proceeding mandated by this section. AT&T was the only IXC affirmatively alleged to be dominant as to any service; however, MCI and US Sprint were required to demonstrate non-dominance as well.

The Commission defined four service markets in that proceeding: basic long-distance service, or MTS; 800 service; operator services; and "all other services." This last category consists primarily of WATS, WATS-like, private line service and virtual private line service.

The Commission determined in December 1988 that AT&T is dominant in all four service markets. It further determined that the level of competition in all four markets warrants the Commission designating all services as "regulated competitive."

The Commission's Substantive Rules in effect at the time of the market dominance case (Substantive Rule 23.25) permitted flexible regulation for certain AT&T services. This rule was formulated to allow AT&T to address competition in the long-distance market while continuing to be regulated as the dominant interexchange carrier in the State of Texas. The rule has been amended twice to permit AT&T greater flexibility in pricing its services.

The original version of the rule, which took effect July 1, 1987, prescribed a range or band of rates for most of AT&T's services. This flexibility permitted AT&T to change some rates within a band, rather than having to charge the exact rate set by the Commission in a full rate proceeding. Rate banding was permitted for three services: basic long-distance (MTS), WATS, and private line service. There was no rate band for 800 service or operator services.

Substantive Rule 23.25 was amended effective August 1989 to grant AT&T additional pricing flexibility for WATS and private line service. These changes permit AT&T to price these services as it wishes, so long as its rates yield revenues in excess of the access, billing and collection costs associated with provision of each service.

In response to this new flexibility AT&T filed tariffs in August 1989 to

* establish time-of-day discounts for its Software Defined Network services,

* establish volume discounts for Megacom[R] WATS,

* introduce new digital private line services and offer promotional installation procedures for these new services,

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[R]Registered Service Mark of AT&T.

* increase some analog private line rates (in order to bring these rates up to the minimum levels established in the rule) and

* discontinue the offering of some analog private line services.

In December of 1989, AT&T introduced a new WATS service entitled AT&T One Line WATS. This service differs from the company's traditional WATS services in that it uses a multi-jurisdictional access line, permitting both intrastate and interstate calling over the same line, is priced in smaller increments, and provides for usage discounts.

As a result of access reductions granted in December of 1990, AT&T has restructured its traditional WATS and 800 services and has reduced rates for a majority of its WATS products.

B. CHANGES MADE BY THE SEVENTY-FIRST LEGISLATURE (HB 174)

In 1989 the 71st Legislature adopted HB 174, which affected the telecommunications industry and set several tasks for the Commission. The bill's major provisions involved:

* bringing most operator service providers (OSPs) within PURA's definition of a "public utility."

* adding Section 18A to PURA, which put certain requirements on OSPs and directed the Commission to adopt a rule regulating the practices of OSPs by January 1, 1990.

* limiting to 50 cents the amount a hotel or motel may charge for certain phone calls.

* directing the Commission to establish a dual-party relay service for the hearing- and speech- impaired by September 1, 1990.

* providing that the cost of the dual-party relay service would be reimbursed from the Universal Service Fund (USF), and permitted telecommunications utilities to recover their USF assessments for the service through a surcharge.

C. COMMISSION ACTIONS

1. Substantive Rule 23.25 - Flexible Regulation of Certain AT&T Services

In March 1990, AT&T petitioned the Commission to amend Substantive Rule 23.25 in order to grant AT&T additional flexibility in pricing its MTS, 800 and operator services. In addition, the company sought the ability to introduce optional calling plans, which are specially packaged MTS services, on the same basis as OCCs. AT&T's petition also sought

authority to introduce temporary promotional rates on five days' notice to the Commission. Optional calling plans and temporary promotional rates would have to be priced above the cost of access, billing and collection.

In November 1990, the Commission adopted amendments to Substantive Rule 23.25 which granted AT&T additional flexibility to respond to competition, although the company continues to be the dominant IXC. Thus the Commission retains jurisdiction over the pricing practices of AT&T. The major changes in the rule affect rates for MTS, 800 service, and operator services.

a. MTS Rates

The amendments adopted by the Commission cap MTS rates at the rates in effect on May 1, 1990. Before these amendments, AT&T had the flexibility to raise its rates one cent per minute for calls carried 82 miles or more. The minimum rates for MTS remain at their former levels, but in no event may a rate be lowered below 105 percent of AT&T's cost of access, billing and collection. Certain of AT&T's rates are already below these costs. The amendments do not lower these rates, but prevent them from falling further below cost.

The Commission granted AT&T's request to set its evening and night MTS rates separately from its day rates. Under the previous tariff, evening and night rates were expressed in terms of a percentage discount off day rates. Under the new version of Rule 23.25, evening and night rates are capped at their current levels, as are day rates.

b. Optional Calling Plans

The Commission did not adopt a provision for optional calling plans. The optional calling plans which the company now offers were introduced under another section of the rule providing for new services. They may be changed pursuant to existing flexibility for pricing MTS.

c. Temporary Promotional Rates

AT&T may now offer temporary promotional rates for MTS or operator services on five days' notice to the Commission. Such rates must be within the allowable range for the service to which they apply.

d. 800 Service

Under the previous version of Rule 23.25, AT&T had no flexibility in its pricing of 800 service. The amendments adopted by the Commission set a range of permissible rates for 800 service. Rates may not fall below 105 percent of the costs of access, billing and collection, nor may they exceed 140 percent of these costs.

The maximum rate applies only until the problem of 800 number portability is resolved in Texas. When the RBOCs have access to a database for translating 800 numbers, 800 customers will be able to retain their 800 numbers when changing from one 800 carrier to another. When this database is approved for use in Texas, the ceiling on AT&T's 800 service rates will expire.

e. Operator Services

Under the previous version of the rule, AT&T had no flexibility in pricing its operator services. The amendments adopted provide for a range of rates for these services. Exhibit II-I shows a comparison of current, maximum and minimum operator services surcharges under the new version of the rule.

f. Impact

Since the amendments became effective, AT&T has filed tariffs reducing rates for its basic MTS service. However, these reductions reflect reductions in access costs which result from the resolution of the WATS prorate credit case (Docket 8218). These rate reductions have reduced AT&T's charges on most of its services by approximately $50 million per year. Further rate reductions of at least $50 million will follow as a result of the Southwestern Bell (SWB) rate case, Docket 8585.

2. Substantive Rule 23.55 - Regulation of Operator Service Providers

The Commission initiated a rulemaking to address concerns surrounding OSPs by publishing a list of questions in the Texas Register in August 1989. Twenty-five sets of comments were filed in response to the questions. After analysis of the comments filed, and meetings between Commission Staff and representatives of the industry, the Commission adopted an operator services rule on an emergency basis. This rule was replaced in May 1990, by a permanent rule. The operator services rule incorporates the provisions of PURA Section 18A as well as other consumer protections. Major provisions of the rule are:

a. Requirements to provide operator service

Operator services provided for call aggregators through telephones intended to be used by the public must be provided pursuant to a contract, as a presubscribed IXC, or by the LEC pursuant to a tariff.

b. Information to be provided at the telephone instrument

At telephones intended to be used by the public, the following information must be attached to the telephone instrument:

* the name of the OSP

* instructions for accessing the OSP to obtain rate information
* instructions for accessing the LEC
* instructions for registering a complaint
* instructions in English and Spanish for accessing emergency service
* notice that another long-distance carrier may be accessed
* if the carrier's charges exceed 115 percent of AT&T's rates, a notice that the carrier's charges are not regulated.

c. Requirements before a call is completed

The OSP must identify itself to the customer and the billed party, quote rate information on request, and permit the caller to terminate the call at no charge prior to completion of the call by the OSP.

d. Uncompleted calls

An OSP must not knowingly bill customers for uncompleted calls.

e. 911 calls, 0- calls, and end user choice

From most phones, all 911 calls must be routed without charge to the Public Safety Answering Point.

The OSP must allow use of the billed party's preferred carrier when end user choice becomes technically available. If this is not possible, 0- calls may be routed to the OSP in most cases. End user choice, although not currently available, reflects the policy goal of the Commission. This requirement is intended to direct development of the industry.

f. Customer complaints

The OSP must provide certain procedures for customer complaints.

g. Access

OSPs must require, by contract, that call aggregators allow access to the LEC and other telecommunications utilities. This includes access by "950," "1-800" and, in most cases, "10XXX."

h. LEC requirements

By December 31, 1991, LECs must provide validation and billing-and-collection services in a nondiscriminatory manner. Upon request, the LEC must transfer callers to their carrier of choice, if possible.

i. Call splashing

Call splashing involves routing a call through an intermediate location, and results in the call being billed from a location other than its point of origination. Call splashing is not allowed under most circumstances. If a call is splashed, the caller must be informed beforehand and allowed to abort the call.

3. Resolution of the WATS Prorate Credit Issue

The WATS prorate credit was a provision in the access tariffs of SWB and other LECs which allowed WATS resellers to receive a discount on originating switched access charges. The rationale for the credit was that charging the reseller would result in the LEC double-collecting for originating access because the IXC whose services were being resold had already paid such charges. However, in some instances, no IXC was paying switched access, and the reseller received the credit anyway.

The availability of the credit inspired many IXCs, including some of the largest competitors, to manipulate their corporate structures and reconfigure their networks to obtain its benefits. These manipulations resulted in the appearance of many new Texas IXCs created solely to benefit from the WATS prorate credit.

In June 1988 the Commission general counsel filed an inquiry (Docket 8218) into the application of the WATS prorate credit. This inquiry was consolidated with the SWB rate case (Docket 8585) in February 1989.

To curtail abuse of the credit, the Commission adopted Substantive Rule 23.61(m) on an emergency basis in February 1989. The rule prevented LECs from granting the credit to a reseller for resold minutes in cases where access charges were not paid on those resold minutes by another IXC. Under the rule, IXCs which had received the WATS prorate credit in 1988 were "grandfathered." This provision allowed such firms, which include US Sprint, to continue to receive the credit in limited amounts. The rule excluded AT&T, the dominant IXC in Texas, from the credit.

The rule was challenged in the courts by firms which were excluded from the grandfather clause. On January 4, 1990, a state district court struck down the rule as unreasonably discriminatory. Furthermore, a provision of the stipulated agreement and order in the SWB rate case (Docket 8585) was that the rule be repealed.

In February 1990 the commission issued an interim order in Docket 8218. This order effected modifications to SWB's tariff which eliminated, effective June 20, 1990, the WATS prorate credits in instances where the credits are not necessary to prevent the LEC double recovery of originating access charges on resale traffic.

The WATS prorate issue was finally resolved in November 1990 when the Commission issued a final order in consolidated Dockets 8585 and 8218. The order incorporated a stipulated agreement in Docket 8585, which called for repeal of Substantive Rule 23.61(m).

The access charge discounts created by the WATS prorate credit had the appearance of encouraging competition in the provision of interexchange service by giving some IXCs a cost advantage over AT&T and other large IXCs which did not benefit from the credit. The credit had two effects on the number of IXCs:

(1) It stimulated the creation of carriers to gain the benefits of the credit. With the elimination of the credit, the Commission expects most of these new carriers to be eliminated. This fallout does not represent a diminution of competition in the market, merely a corporate restructuring of existing competition.

(2) By creating a cost advantage, it improved the economic viability of most of the OCCs. This cost advantage was not a measure of the economic efficiency of the firms that enjoyed its benefits. Rather, it resulted from an anomalous interpretation of the LECs' access tariffs. The examiner in Docket 8218 "found that no credible policy basis exists which would warrant the continued availability of WATS prorate credits in instances where the credits are not necessary to prevent LEC double recovery of [access charges]." (Docket 8218, Letter, January 17, 1990)

4. Dual Party Relay Service (Relay Texas)

Relay Texas, our state's dual-party relay service for the hearing- and speech-impaired, was inaugurated in September 1990 when Governor Bill Clements placed a call to Mrs. Opal Piercy in Houston. During that first month, almost 50,000 other calls were made over the system.

Relay Texas enables persons using a telecommunications device for the deaf (TDD) and hearing persons with regular telephones to call each other. Agents at the Relay Texas center in Austin transmit the messages from voice to TDD or from TDD to voice.

Relay Texas got its start in 1989, when the Legislature authorized its creation. The Commission implemented the system under the guidance of a 13-member Advisory Committee. The Advisory Committee consists of representatives of the Texas Association of the Deaf, Self-Help for the Hard of Hearing, American Association of Retired Persons,

Texas Deaf/Blind Association, Texas Telephone Association, Texas Commission for the Deaf, and two members who represent the consumers of telecommunications services.

In awarding the contract for provision of Relay Texas service, the Commission considered four factors required by law: cost of the service, service improvements offered, technical quality of the network, and starting date for the service. The contract was awarded in March 1990 to Sprint Services.

In November 1990 Relay Texas carried about 79,000 phone calls. This monthly count is expected to reach 125,000 by the end of 1991. Use of the service will increase as news of its availability is spread among the 1.4 million hearing-impaired and 17 thousand speech-impaired Texans, as well as among members of the hearing community who now can communicate by phone with them. Informing the public about the service is one of the main responsibilities of Relay Texas' Consumer Relations Administrator, a full-time employee of the PUC.

Texas is not the first state to provide such a relay service, but Relay Texas is setting a national standard for high-quality service. Texas callers have access to unlimited calls, Spanish-speaking relay operators, 24-hour year-round service, and the ability to call out-of-state. This quality of service has attracted the attention of other states. Colorado and North Carolina are now using the Relay Texas center, through separate contracts with Sprint Services, to provide service for their states.

5. IntraLATA 1 + WATS and 800 Service Competition Case

Docket 7330 addressed the issue of whether intraLATA 1 + WATS and 800 service traffic should belong to the LECs. Commission policy had been to reserve all 1 + intraLATA traffic to the LECs. IntraLATA 800 service was carried by both LECs and IXCs. When an IXC carried an intraLATA 800 call, it was billed by the LEC at a revenue replacement rate, in lieu of access charges. Both issues had been raised in other dockets by MCI.

In August 1989 the Commission denied the petition of MCI with respect to both intraLATA 1 + WATS and 800 service traffic. The final order confirmed the status quo in both cases. Although intraLATA competition is permitted with respect to WATS traffic, a customer must access the IXC by dialing 10XXX, rather than 1 +, in order to ensure that the call will be carried and billed by the IXC and not the LEC. IntraLATA 800 Service traffic which is not provided jointly by the LEC and an IXC is still carried over the IXC's network and billed by the IXC. The IXC pays the LEC a revenue replacement rate in lieu of access charges for each originating 800 Service intraLATA minute of use.

D. STATUS OF COMPETITION

1. Statistics

a. Number of Competitors

Texas interexchange carriers are required by law to register with the Commission within 30 days of commencing service. The Commission maintains a list of registered carriers, but the number of registrants is not a reliable indicator of competition in the long-distance market for several reasons.

First, the requirement to register applies to all nondominant carriers, not only interexchange carriers. Some carriers who register with the Commission provide telecommunications service only incidentally or wholly within a single exchange. Some carriers have registered with the Commission, with the expectation of providing intrastate service, but have failed to commence operations in Texas.

Second, carriers who go out of business or no longer provide telecommunications service seldom report these events to the Commission, so they may remain on the list for some time although they are no longer effective competitors.

Third, some carriers have complex corporate structures which result in several closely affiliated companies all registering with the Commission. Although these companies are not competing with each other, they appear as separate competitors in a count of registered interexchange carriers.

Closely related to the third consideration is the industry's response to the WATS prorate credit. (See discussion below in Section II.C.3.) The availability of this access charge discount caused some IXCs to create new corporate entities to take advantage of the reseller credit. These new companies did not represent new competition, but merely a proliferation of corporate entities among existing competitors.

A fifth, countervailing factor is the failure of some interexchange carriers to register with the Commission as the law requires.

In 1988, the examiner in the interexchange market dominance case, Docket 7790, found that there were 107 interexchange carriers operating in Texas. The Telephone Division Staff estimates, based on IXC registrations, Interexchange Carrier Data Reports (IXCDRs) filed and other contacts with IXCs, that 142 IXCs were operating intrastate as of June 30, 1990.

b. Market Shares

An examination of the revenue data reported on the IXCDRs filed since 1986 reveals certain trends in AT&T's market position. (See Exhibit II-H.)

The market share of the dominant carrier (AT&T) has declined steadily. AT&T's share of total intrastate interexchange revenues has declined from 77.3 percent in the first quarter of 1986 to 64.7 percent in mid-1990.

The market in which AT&T has experienced the most competition is WATS, with market share dropping from 75.8 percent to 30.6 percent over the same period.

AT&T maintains a strong market position in MTS. The company has retained 67 percent of the market despite significant growth in the number of competitors over the last four years. In the first quarter of 1986, AT&T had a 73.8 percent of MTS intrastate revenue.

In 800 service, AT&T has lost the virtual monopoly of the market seen in the first quarter of 1986 (99.7 percent of revenue). In mid-1990 AT&T earned 67.2 percent of Texas intrastate 800 service revenues. This trend is borne out by rapid growth in the number of IXCs offering 800 service (from fewer than three OCCs in 1986 to 34 by the end of 1989).

To gather information on market shares, the Commission's Telephone Division Staff periodically distributes the IXCDR. This questionnaire asks for information regarding IXCs' number of customers, minutes of use, revenues, access arrangements and operator services.

The Staff is concerned that aggregated data from the 1990 IXCDRs systematically misrepresents AT&T's market share due to a very low response rate from OCCs. Questionnaires were mailed to all IXCs on November 16, 1990, with responses due December 21. Eighty-one IXCs had failed to respond by January 3, 1991. Because of the IXCs' failure to supply accurate data in time for its inclusion in this report, Staff asks the reader to exercise caution in drawing inferences from the data presented for the first two quarters of 1990. Since all the nonrespondents (listed in Exhibit II-J) are OCCs, failure to include their revenue, customer and minutes-of-use data has the effect of overstating AT&T's share of the market.

Information provided by firms in the IXCDR is treated as proprietary information of the reporting companies. It is made available only to PUC Staff who have signed a confidentiality agreement and only on a need-to-know basis.

Information from the IXCDRs is used primarily to assess trends in the market share of the dominant IXC, AT&T, in the various markets for interexchange service. AT&T has granted the Commission permission to report data on its number of customers, minutes of use and revenues for the reporting periods covered in this report. This waiver of confidentiality permits the Commission to publish market share data for AT&T. Market share percentages based on aggregated data on number of revenues, customers, and minutes of use are included in this report as Exhibits II.B - D.

2. Other Factors

a. Equal Access

Access service is the service LECs provide when they make their exchange facilities available for the origination and termination of long-distance (interexchange) service. Equal access is access service provided by the LECs that allows any IXC to offer 1 + interexchange service and, conversely, allows customers to select a primary IXC to carry all long-distance calls initiated by dialing 1 + area code + local number. When an LEC end office is converted to equal access, the LEC sends a ballot to all customers served by that end office. The customer must return that ballot to the LEC, designating which IXC will provide that customer's 1 + interLATA long-distance service. If a customer fails to select a 1 + interexchange carrier, a carrier is randomly assigned. Any customer may change 1 + carriers at any time, but there may be a fee to do so.

The progress of equal access conversions affects MTS and operator services. Since divestiture, equal access has been available statewide for the provision of WATS, private lines, and 800 service. However, for technical reasons, 800 service cannot be provided directly by an OCC in all end offices.

As of June 1990, the percentages of end offices converted to equal access were 64.1 percent for Southwestern Bell, 54.2 percent for GTE Southwest, and 45.5 percent for the state as a whole. The percentage of access lines converted to equal access is higher: by December 31, 1989, 84 percent of access lines in Texas had equal access.

Equal access end offices are not spread evenly across the state. They are concentrated in urban, suburban, or incorporated areas. However, even when a city has equal access there may be some end offices in the city which have not converted.

The effect of equal access on IXCs' ability to compete in the provision of MTS is tied to the type of access an IXC is able to use to structure its network. There are four types of switched access, known as feature groups, that an IXC can use to originate or terminate traffic.

Feature Group D (FGD) is the type of access service available in equal access end offices. Also known as 1 + equal access, FGD enables an IXC to provide basic long-distance service to its end user customers, who simply dial ten digits to place a long-distance call: 1 + area code + number desired. Although OCCs are not required to purchase FGD in equal access end offices, other types of access are also charged at a premium rate for call traffic originating from or terminating to an equal access end office.

Feature Group C (FGC) is the type of access that AT&T has in non-equal access end offices. On conversion of an end office to equal access, AT&T's FGD access is converted to FGD. There is no difference in rate between FGC and FGD.

With Feature Groups A and B (FGA and FGB), customers must dial up to 23 digits to complete a call. The 23 digits consist of the telephone number of the OCC's business line (NXX-XXXX), the ten-digit number of the called party, and a personal identification number allowing the OCC to bill the customer for the call. The extra digits may be dialed by the customer or by an automatic dialer. OCCs sometimes provide such dialers to customers they are anxious to serve. These dialers cost from $175 for a one-line dialer to $400 for a four-line dialer.

The use of FGA or FGB presents OCCs with several disadvantages; among these problems, fraudulent use of the OCC network may be the most serious. Neither FGA nor FGB offers the OCC important billing information, i.e., the number of the calling party. Therefore, a personal identification number must be used. Since these numbers may be determined with the use of widely available computer hardware and software, fraud is difficult to prevent.

Additionally, FGA is a "lineside" connection, while the other feature groups are "trunkside" connections. Trunkside connections provide better technical quality than do lineside connections.

In non-equal access areas, customers with rotary-dial telephones cannot use the services of certain OCCs, since they cannot transmit the extra digits needed for billing.

To offset these disadvantages, OCCs receive a 55 percent discount for the origination and termination of all calls in non-equal access areas. This discount lowers an OCC's overall costs even if the OCC does not offer originating service in non-equal access areas. Transmission over FGB is equal to FGD for terminating access even in non-equal access end offices. Consequently, the discount compensates some OCCs for a disadvantage they do not suffer.

Whether the OCCs as a whole are competitively harmed by the continued unavailability of equal access in some areas of Texas is unknown. Even in equal access areas, some OCCs terminate on FGB rather than on FGD to take advantage of the lower FGB access rates offered by independent LECs. The OCCs' connections in non-equal access areas are inferior, and cost is the only advantage that tends to equalize the competitive positions of AT&T and the OCCs in those areas.

Finally, any benefits of ubiquitous equal access which accrue to OCCs and their customers must be weighed against the substantial hardware, software and network costs associated with provision of equal access in rural areas of the state.

b. Access Charge Discounts

Two discounts on access charges affect the competitive positions of AT&T and the OCCs: the 55 percent discount for FGA and FGB available to the OCCs, and the WATS

prorate credit which was available to resellers until June 20, 1990. AT&T has not benefitted from either discount.

When a call is originated and terminated in an equal access area, all IXCs incur approximately the same level of access charges. However, when a call is originated in an equal access area and terminated in a non-equal access area, the OCCs receive a 55 percent discount on all terminating access charges, even though the access service is identical. The significance of the unequal access rates charged AT&T and the OCCs is diminishing as exchanges are converted to equal access.

In addition to the 55 percent discount, many LECs' access service tariffs provided for a credit allowing WATS resellers to have certain access charges waived. This credit, called the WATS prorate credit, resulted in many OCCs paying lower originating access charges than AT&T, MCI and US Sprint. A more detailed discussion of this case may be found in Section II.C.3.

c. Marketing Practices

One competitive practice which has drawn a number of complaints from consumers is the unauthorized change of a customer's choice of long-distance carrier. Such an unauthorized change has come to be known as "slamming," and has become a national concern at the FCC and in Congress.

When a customer chooses or wants to change a long-distance carrier in an equal access area, he or she notifies the local exchange company, which carries out the customer's wish. Most LECs impose a charge for a change of carrier, but there is no charge when a customer makes the original choice.

As competing IXCs have become more aggressive in their marketing practices, they have solicited customers over the phone to choose them as the customer's primary (1 +) carrier. The IXC is supposed to obtain written authorization for a change of carrier, but not all telemarketers follow through on this requirement. The IXC submits to the LEC (usually on magnetic tape) a list of customers it claims have selected the IXC as their primary carrier. On receipt of the list, the LEC is obligated by FCC rules to carry out the instructions of the IXC. If the change of IXC is not authorized, the customer may be surprised to receive a long-distance bill from a new IXC, as well as a charge from the LEC for carrying out the change of long-distance carrier.

The FCC has received more than 1,850 slamming complaints from customers. LECs nationwide have received about 100,000 complaints about the practice. The Texas PUC received seven such complaints during the months of September, October and November of 1990.

AT&T and MCI have recently announced an agreement to settle litigation over the practice of slamming. The agreement includes safeguards to prevent slamming, including positive steps to be taken before a customer's carrier is changed. Also included are plans for independent audits to confirm compliance.

The PUC Staff is investigating the magnitude of this problem in Texas. If proposed solutions do not work, the Commission may take action to protect consumers from this injurious marketing practice.

E. IMPACT OF COMPETITION

1. Rural vs. Urban Areas

Rural customers in Texas continue to have less ability than urban customers to obtain the same, equivalent or substitutable interexchange services at comparable rates, terms and conditions.

The primary disadvantage faced by rural customers is that they often are located in non-equal access areas. Thus, if they do not use AT&T's service they must endure the 23-digit dialing and other problems resulting from the OCCs' inferior connections in such areas. The resulting access charge discounts enjoyed by the OCCs may or may not be passed on in full to their customers, because their rates are not regulated by the PUC.

Moreover, urban customers have larger numbers of competitors to choose from than do rural customers. Rural areas attract fewer OCCs because of lower revenue expectations, greater expense, and lack of available facilities. The last obstacle may be partly overcome as Southwestern Bell replaces 195 old electromechanical switches with digital equipment, as ordered by the Commission in its recent rate case, Docket 8585. As digital equipment penetrates the SWB service area, equal access and improved service quality should follow.

Rural customers do benefit to a great extent from the lower long-distance rates which competition brings about. Both PURA and the Commission's Substantive Rules require Texas IXCs to maintain statewide average rates, which means that IXCs must charge the same rates to their rural customers that they offer in metropolitan areas, where they face more competition.

2. Residential vs. Business

Large users of interexchange service, which are usually businesses, continue to have much less difficulty than small users in obtaining service of similar quality under comparable conditions. This situation results from two factors: Large users are more attractive customers, so IXCs court them, often bidding for the right to serve. Second, large users are often located in urban areas where the range of choices, and the degree of competition among IXCs is greater.

Some businesses subscribe to the services of five or more IXCs. Large businesses can purchase equipment which can be programmed to automatically route each call to the IXC whose rates are lowest for the particular destination and time of day. With such equipment, the customer may not even be aware which IXC carried a particular call.

Very large customers have an additional alternative: they can build their own telecommunications systems in whole or part.

3. Universal Service

The two major aspects of universal service are affordability and availability. Long-distance service has become more affordable due to two recent PUC actions: the SWB rate case settlement resulted in a reduction in access charges, which is being flowed through to customers of IXCs. Second, amendment of Substantive Rule 23.25, which governs AT&T's long-distance rates, gave the dominant IXC flexibility in two areas which have encouraged the company to lower its rates for basic long-distance service: First, night and evening rate schedules were severed from the day rate schedule. This permits the company to lower its day MTS rates without bringing night and evening rates below cost. Second, the mechanism for flowing through access charge reductions was altered to allow the company to lower its MTS rates in response to lower access costs without bringing any rate element below its cost.

With respect to availability, PURA has a no-abandonment provision which ensures that every area of Texas will always be served by at least one IXC. However, the impact of competition is less significant in rural areas where availability of alternative carriers is restricted for reasons mentioned earlier.

III. COMPETITION IN LOCAL EXCHANGE TELECOMMUNICATIONS

Until recently, in discussions of competition at the local exchange the question was whether competition really existed at all. For the most part, unlike the volatile and competitive market for long-distance service, competition was merely "nibbling at the edges" of the local exchange industry.

Events in Texas in the last two years have changed that scenario to some extent. There have been significant challenges to the role of LECs in the provision of local service. These challenges have prompted the Commission to engage in a rulemaking defining the concept of "local exchange service." This rulemaking and other proceedings before the Commission are redefining the issues surrounding local service.

A. HISTORICAL BACKGROUND

1. Federal Responses to Competition

The Federal Communications Commission (FCC) has pursued an aggressive deregulation policy during the past twenty years in its regulatory decisions concerning telecommunications carriers. Many of those decisions have had a significant impact on Texas telephone utilities and their customers.

Before 1968, telephone companies provided service that included instruments on the customers' premises, and would not permit any other equipment to be connected to the network. In the 1968 "Carterfone" decision, the FCC ordered an end to the telephone company's prohibition against attaching customer-provided equipment to telephone lines. That decision resulted in the proliferation of competitive offerings of customer premises equipment (CPE). This included not only basic telephones, but also larger units such as the multi-line private branch exchanges (PBXs) and small "key systems" located on the customer's premises.

By the late 1970s, it was clear that the competitive provision of CPE was working. An increasing number of vendors were offering new and innovative products. In the 1980 decision in the Second Computer Inquiry (Computer II), the FCC deregulated the provision of all but basic common carrier services, and deregulated telephone company provision of telephone equipment used on a customer's premises. This massive deregulation took place beginning January 1, 1983, one year before divestiture. Telephone companies were ordered to remove CPE offerings from their tariffs by not later than year-end 1983.

As a result of the Computer II decision, many telephone utilities, including the pre-divestiture Bell system, formed separate subsidiaries to install and maintain CPE. Some utilities chose to recognize the non-regulated activities through special accounting entries.

AT&T and its Bell system subsidiaries were prohibited from offering enhanced services on an integrated basis.

Computer II also established the early ground rules for the provision of new and enhanced services such as data transmission and cellular mobile phone service. Such services would not be considered a part of the regulated phone company, but could be provided by a separate subsidiary or under separate accounting treatment for non-Bell system telephone companies.

Computer II was followed by Computer Inquiry III (Computer III), a proceeding in which the FCC ruled that AT&T and the seven Regional Bell Operating Companies (RBOCs) should be permitted to offer enhanced telecommunications services without the strict separation requirements of Computer II. This decision has been overturned by a federal appeals court and remanded to the FCC.

In another sweeping policy decision, the FCC ordered all telephone utilities to detariff the provision and maintenance of inside wiring on customers' premises effective January 1, 1987. While this service may be provided by the telephone utilities through separate accounting treatment, the installation charges for wiring are no longer regulated by the FCC or state regulatory commissions. Most companies have revised their monthly billings to reflect the separate cost of wiring maintenance.

2. Divestiture

On January 1, 1984, under a federal consent decree known as the Modified Final Judgment (MFJ), the 100 year-old Bell System was broken up. The primary objective of the MFJ was to eliminate impediments to competition in the interexchange industry. This goal was pursued in three ways:

By divesting AT&T of its local exchange operations. The RBOCs were then restricted from providing interexchange service except in their designated local serving areas, called local access and transport areas (LATAs).

By imposing additional line-of-business restrictions on the RBOCs in the areas of equipment manufacturing and the provision of information services.

By requiring the divested RBOCs and similar General Telephone operating companies to offer equal access to competing long-distance companies.

3. Price Caps

Effective January 1, 1991, LECs nationwide are subject to price cap regulation at the interstate level. The FCC has jurisdiction over LECs because access to their networks is necessary to the provision of interstate service. The new pricing plan applies to access charges paid by interstate long-distance companies to LECs.

Historically, the LECs' interstate access rates have been set by the FCC in traditional rate-base rate-of-return regulatory proceedings. The price-cap plan allows the LECs more pricing flexibility.

The price-cap plan is mandatory for the seven RBOCs (including Southwestern Bell) and GTE, and optional for smaller LECs. Under the plan the caps will be applied to four large "baskets" of service. Price fluctuations for services within those baskets will be limited. The price cap for a basket will be adjusted automatically from year to year to account for changes in the price level and an annual increase in the LECs' productivity. The productivity index is set at 3.3 percent per year, but companies may opt for a 4.3 percent rate. Companies which increase their productivity at a rate greater than the index will benefit from the price cap plan, because the plan forces their price-adjusted rates to fall at the rate of the productivity index.

At the time that it imposed the price cap plan, the FCC also lowered the allowed rate of return for LECs to 11.25 percent from 12 percent.

An incentive regulation plan is available to companies under the price cap plan. Incentive regulation is a regulatory scheme which allows a regulated company to retain a portion of its earnings in excess of the allowed rate of return. In the case of the LECs, if a company applies the 3.3 percent productivity index to its price caps, it will be allowed to retain its excess earnings up to a rate of return of 12.25 percent. Profits above 13.25 percent are split 50-50 with ratepayers, up to a limit of 16.25 percent. The LEC must return to customers all excess earnings beyond the 17.25 percent threshold. For LECs using the higher, 4.3 percent productivity index, the thresholds for full retention, 50-50 sharing with customers and no retention of excess earnings are 13.25 percent and 17.25 percent, respectively. That is, earnings for these companies below 13.25 percent return on investment are retained by the company. Earnings above 17.25 percent are returned to customers. Earnings in between are shared equally by the company and its customers.

B. OVERVIEW - TEXAS PUC JURISDICTION

Each state may regulate local exchange companies' intrastate rates and services, including local exchange service, intrastate long-distance, and access to the interexchange intrastate network. In Texas, the Public Utility Commission (PUC) is vested with the authority to regulate telecommunications utilities by the Public Regulatory Act (PURA).

C. CHANGES MADE BY THE SEVENTY-FIRST LEGISLATURE (HB 174)

In 1989 the 71st Legislature adopted HB 174, which affected the telecommunications industry and set several tasks for the Commission. The bill's major provisions involved operator service providers and establishment of a dual party relay service for the hearing- and speech- impaired.

The provisions of HB 174 and the Commission's actions in carrying out its mandates are discussed in greater detail in Section II of this Report, Competition in Long-Distance Telecommunications.

D. COMMISSION ACTIONS

1. Southwestern Bell (SWB) Rate Case

The PUC General Counsel initiated an inquiry into SWB's rates and services (Docket 8585) in January 1989. In response, SWB proposed a plan it called "Texas First." The Texas First plan called for a combination of network and service improvements, a cap on rates for local service, and reductions in rates for other services. The plan, as described in SWB's prefiled testimony, also included a provision for flexible earnings, or incentive regulation. (The flexible earnings plan applied by the PUC to SWB is similar to the incentive regulation plan recently adopted by the FCC in conjunction with price caps. This plan is discussed above, in Section III.A.3.) SWB claimed the Texas First plan would reduce its revenues by $72 million annually.

In December 1989, PUC Staff filed testimony alleging that SWB had been earning revenues which exceeded the rate of return authorized in its last rate case (12.03 percent). According to Staff, these excess earnings amounted to $392 million per year. The Staff proposed a restructuring of SWB's rates to return the excess earnings to ratepayers . The Staff recommendations supported many aspects of the Texas First plan, including a modified plan for flexible earnings. However, the Staff called for much larger rate reductions. Among the Staff recommendations which went beyond SWB's plan were reduced installation charges and toll rates.

In February 1990, the PUC Staff, SWB and most of the 40 intervenors in the case agreed on a "Stipulation and Agreement" to settle the case. The agreement incorporated most major provisions of both Texas First and the PUC Staff proposal. It called for rate reductions and other customer benefits, including network and service improvements, totaling $1.2 billion over a four-year period.

In November 1990, the Commission, on a 2-1 vote (Commissioner Campbell dissenting), issued an order settling the case. The Final Order is consistent with the Stipulation and Agreement, with minor changes. Key provisions of the order are:

* Cap on basic service rates. SWB may not increase its local exchange service rates for four years

* Consumer credit. SWB will return to consumers $87.5 million through an immediate credit on their phone bills.

* Reduction in Touch-Tone rates. Rates for Touch-tone service are reduced. Residential rates will fall from $1.25 to $.50 per month in four

years. Single-line business rates will be reduced from $2.00 to $1.35 per month.

* Network modernization. SWB will replace old electromechanical equipment with digital call-processing equipment in 195 communities. The improvements, which will be completed within four years, will allow customers in these communities to have access to optional calling features such as Call-Waiting and Call-Forwarding. The new equipment also will provide faster, more accurate transmission of voice and data and will permit customers in these communities equal access to interexchange carriers.

* Reduction in service connection charges. The charge for residential service connection was reduced from $60.00 to $38.35. Service connection charges for businesses were restructured.

* Service upgrades for two- and four-party customers. An existing customer having two- or four-party service will be upgraded to one-party service within four years without an increase in rates.

* Lifeline service. The Lifeline service, which permits reduced basic local service rates for low-income customers, is introduced by the order.

* Reductions in SWB long-distance rates. These rate reductions will reduce SWB's revenue by approximately $20 million per year, after the effects of stimulation (increased long-distance use which results from the lower rates) and LEC intraLATA toll pool distributions are taken into account.

* Access charge reductions. The rates SWB charges IXCs for access to its network will be reduced by $160 million in the first year, $14 million in the second year, $13 million in the third year and $64 million in the fourth year after the order. These reductions will be passed on to customers through lower rates charged by the IXCs. The PUC rule governing AT&T's long-distance rates requires AT&T to pass through these cost savings dollar-for-dollar to customers. This provision of the settlement is expected to reduce charges to AT&T's long-distance customers by $50 million per year. OCCs also will pay lower access charges, and are expected to lower their rates in response.

* Extended Metropolitan Service (EMS). Within two and one-half years, SWB will expand EMS to 22 communities in the Houston, Dallas, Fort Worth, San Antonio and Austin areas. Also included in the order are ten communities serviced by other LECs. EMS is an optional service which

allows customers to make toll-free calls to the nearby metropolitan area for a flat monthly fee.

The communities which will receive EMS are:

Dallas EMS: Aubrey, Midlothian, Combine, Princeton, Crandall, Prosper, Ennis, Red Oak, Farmersville, Royse City, Forney, Terrell, Frisco, Waxahachie, McKinney, Wilmer#

Fort Worth EMS: Alvarado, Cleburne, Weatherford

San Antonio EMS: Lytle, Marion, Bulverde#, Balcones#

Houston EMS: Splendora, Highlands#, Waller, Mont Belvieu#, Riverbrook#, Rosharon#, Brookshire#, Baytown#

Austin EMS: Hutto#

#These communities are not served by SWB, but will get EMS as part of the settlement because the LECs which serve them signed the Stipulation and Agreement.

* Dial-Tone-First public phones. SWB will replace all its pre-pay public telephones with instruments which give dial-tone without insertion of a coin. This enables use of the phone without a coin in case of emergency to dial 9-1-1 or reach an operator.

* WATS/800 service. SWB is restructuring its rates for WATS and 800 service, resulting in a revenue reduction of $17.3 million per year.

* Incentive regulation. The company's authorized rate of return would be replaced by a range from 10.49 to 12.06 percent return on investment.

  If earnings fall below a 10.49 percent return over a twelve-month period, the company may file for a full rate review. Any resulting revision of rates may not increase rates for basic local service.

  If earnings are between 12.06 and 14.5 percent, half of the excess above 12.06 percent will be returned to customers through credits or refunds.

  All earnings above 14.5 percent per year will be returned to customers.

The network and service improvements called for in the order will especially benefit SWB's rural customers. Most of the company's electromechanical switches are located in rural areas of the state. The settlement also promotes the goal of universal service through

expansion of Lifeline service and reduced installations charges. These provisions make basic telephone service more affordable for Texans.

2. Substantive Rule 23.26 - New and Experimental Services

Section 23.26 of the PUC's Substantive Rules provides a process by which LECs may offer and price new and experimental services. The provisions of this rule allow an LEC to receive expedited processing and approval of an application for a service offering. The LEC must file an application with the Commission and the Office of Public Utility Counsel at least 30 days before the service's proposed effective date. The LEC must document that the proposed rates for the service will recover the system-wide long-run incremental cost of the service and provide a contribution to joint or common costs, thereby demonstrating that the service is not being subsidized by the LEC's regulated services. If the service is not to be offered systemwide, the LEC must explain the nature of the technical problem which prevents the service from being provided in each exchange in which the service is not to be offered. Further, the LEC must include an implementation plan for offering the new service in such areas if customers request it. This provision of the rule helps ensure that rural areas of the state are not denied access to advanced telecommunications services.

The Commission expedites applications for new or experimental services through its "administrative review" process unless the presiding examiner determines that an application should be docketed to receive a more thorough review.

Since August 1989, 14 requests for new or experimental services have been approved under this rule.

Although not specifically filed as a new and experimental service under this rule, the local exchange industry submitted an application, Docket No. 8790, to provide experimental optional calling plans (OCPs, in this case discounted intraLATA toll services) for a period of one year. This application and the associated "trial" were approved on December 13, 1989. The trial period extends from February 1, 1990, to January 31, 1991.

There are approximately 31 variations of OCPs being tested around the state (the Houston LATA, the Waco LATA, four exchanges in the San Antonio LATA, two exchanges in the Dallas/Fort Worth LATA, and one exchange each in the Austin, Abilene, Brownsville, Midland, Longview and Wichita Falls LATAs). Approximately ten of the variations are being tested in both urban and rural markets. Once the trial is completed, the participating LECs will analyze the market data obtained to determine the feasibility of implementing OCPs statewide for residential and business customers.

3. Substantive Rule 23.27 - Competitive Services

Under PURA Section 18 (e), the Commission has the authority to allow the LECs pricing flexibility for those services it deems are subject to significant competition. This

same subsection of PURA declares three service markets subject to significant competition: (1) central office based PBX-type services for systems of 200 stations or more; (2) billing and collection services; and (3) high-speed private line services of 1.544 megabits or greater. The Commission's current regulatory treatment of these three services will be discussed later. If a particular LEC desires special pricing flexibility in order to respond to competition it may apply to the Commission to have any other service not already declared so, except basic local exchange service, declared subject to significant competition.

Section 23.27 of the Commission's Substantive Rules outlines the requirements an LEC must meet in the evidentiary hearing procedure in order to have a service deemed subject to significant competition. Specifically, the LEC must submit information substantiating the competitive nature of the service market in question. The LEC must demonstrate in an evidentiary hearing that a number of criteria are met, including the availability of substitutable services, the absence of significant barriers to entry in the market, the threat to the service's contribution, and the threat to the recovery of the service's investment. Further, the LEC must show that the proposed rates would recover the service's systemwide long run incremental costs and that the pricing flexibility requested is appropriate given the extent of competition in the specified market.

The Commission may approve flexible pricing of the following types: rate banding, customer-specific contracts, detariffing, or some other appropriate form. If rate banding is approved, the Commission must establish minimum and maximum rates. The minimum rates must recover the systemwide long run incremental cost of the service plus make a minimum five percent contribution to joint/common costs. If the LEC requests the use of customer-specific contracts, it must show that the rates in the contract meet the cost standard described above, unless a waiver is granted by the Commission to use something besides systemwide long run incremental costs, such as customer-specific costs. In addition, the LEC must demonstrate that rates are not unreasonably discriminatory or preferential, and that the customer contracting the service has investigated substitutable services.

On May 31, 1989, the PUC amended Section 23.27 of its Substantive Rules. The Commission reconsidered the rule to determine the appropriate cost standard for pricing competitive services and for protecting the general body of ratepayers from subsidizing these services.

The Commission retained the rule's use of systemwide incremental cost as a standard for pricing competitive services. However, the PUC modified the process by which an LEC may apply for a waiver of the systemwide cost standard. As a result of the modification, the rule dictates that the requested cost standard must relate to the geographic dimension of the market for which the LEC is requesting pricing flexibility.

As of January 1, 1991, only two applications had been submitted to have a service market declared subject to significant competition. On January 8, 1990, SWB filed an

application pursuant to Section 23.27 requesting pricing flexibility for its central office-based local area network (C.O. LAN) services. The Commission Staff recommended approval of the request. However, the case has been abated pending the resolution of subsequently initiated proceedings that could critically affect the provision of LAN-type services. The second application filed under Rule 23.27 was subsequently withdrawn by the applicant.

For central office-based PBX-type services of 200 stations or more, usually referred to as Centrex service, the Commission allows LECs to use customer-specific contracts. Commission approval of the contract is required prior to initiation of service. Section 23.27 allows certain applications, such as customer-specific contracts, to be eligible for expedited treatment. The Commission must approve or deny an application within 30 days of receiving a complete filing unless the presiding examiner, for good cause, suspends the effective date for an additional 35 days. If the examiner denies the application in administrative review, the LEC may request that the application be docketed. In such instances, the Commission's rules for docketed proceedings are applicable.

Because of the pendency of a docketed proceeding involving outstanding issues common to all customer-specific contracts for Centrex services offered by SWB, three applications for expedited administrative review were denied after processing under Section 23.27. These three applications had been filed before October 8, 1990. On that day, the Commission adopted the stipulation presented by the parties of that docket (Docket No. 8672), permitting SWB to go forward in seeking administrative review under Section 23.27.

As of January 1, 1991, six applications had been filed requesting expedited review and approval pursuant to Section 23.27. Of these six filings, two have been approved, three denied, and one is pending. Staff anticipates more applications to filed in the future pursuant to this rule.

Billing and collection services have been deregulated on an interstate basis, but the Commission still regulates intrastate billing and collection services. Five intrastate access tariffs contain billing and collection services that range from the use of systemwide rates to customer-specific rates developed on an individual case basis. Under some access tariffs, customer-specific contracts do not require Commission approval.

The Commission granted SWB customer-specific pricing capability for high-speed private line services of greater than 1.544 megabits. SWB is required to file an informational letter with the Commission at least 35 days prior to initiation of service. No action from the Commission is required for the initiation of these services.

4. Substantive Rule 23.28 - Promotional Rates

The Commission's rule concerning promotional rates was designed to provide LECs with the opportunity to increase subscribership to particular services. The LECs may receive expedited review of their applications for promotional rates under this section of the Commission's Substantive Rules.

The filing requirements and Commission review process for promotional rates are similar to those for new or competitive services. With an application for promotional rates, the LEC must define the period in which the rates are to be in effect and provide a description of all instances in the previous five years in which the LEC has utilized this rule. This provision helps ensure that the rule does not authorize rates which would have predatory effects or which would require cross-subsidization from regulated services.

The Commission has established the following limits on the use of promotional rates:

* they must be in effect in every exchange in which the LEC offers the service, unless a waiver is granted;

* they must not be offered for more than six months in any five-year period, and no customer is to receive a service at promotional rates for more than three consecutive months;

* they may be offered only to new customers of a service; however, current customers may purchase additional units of the service at promotional rates; and

* they must recover the long run incremental cost of the service, with the following exception: the LEC may request a rate lower then cost if it can demonstrate that the promotional rate will make full cost recovery more likely. However, the Commission will not approve rates below incremental cost if the service has been found to be subject to significant competition.

To date four applications for promotional rate offerings have been filed under this rule. All four applications were approved.

Although not filed under the promotional rates rule, smaller telephone companies have filed and received Commission approval for certain promotional rate offerings over the past two years.

5. Lifeline Service

Following divestiture, the FCC approved the Subscriber Line Charge (SLC), which is added as a separate line item to each telephone subscriber's monthly bill. This charge was

intended to compensate local telephone companies for providing the facilities that connect each customer to the network. Previously, these costs had been covered by higher interstate long-distance rates.

To preserve universal service in the face of these additional charges, in December 1985 the FCC established a "lifeline assistance program" designed to reduce monthly basic telephone rates for low-income households. States that establish programs that meet the FCC specifications obtain a waiver or reduction of the SLC for program participants. State "lifeline" programs may differ considerably in terms of the criteria for determining eligibility and the amount and kind of assistance provided. However, to qualify for the SLC waiver or reduction, the FCC determined that the state program must meet the following minimum requirements:

* the eligibility requirements must be targeted to low-income individuals;

* there must be verification procedures to ensure that program participants are eligible, and eligibility must be reestablished annually;

* assistance is available only for a single telephone line at the participant's principal residence; and

* expenditures must be made at the state level, whether by state funds or by the telephone companies themselves.

In addition to maintaining the statewide Tel-Assistance program described below, the Commission has been working on a case-by-case basis with local telephone companies to establish individual lifeline programs. As of December 31, 1990, the Commission had approved tariffs for eight such programs, including plans for the six largest local telephone companies in Texas. The most recent lifeline tariff was filed by SWB in accordance with the settlement in its recent rate case, which was approved by the Commission in November 1990. Bell's program will provide a discount equal to the $3.50 subscriber line charge to all Bell customers who are certified either (i) to have incomes below the federal poverty level or (ii) to receive public assistance from another means-tested program. Upon certification of the program by the FCC, the SLC itself will also be waived.

6. Substantive Rule 23.52 - Tel-Assistance Service

Provided for in Sections 94-96 of PURA, the Tel-Assistance Service program helps ensure the availability of telephone service to some of the most disadvantaged Texans. Tel-Assistance provides a 65 percent discount on basic local exchange telephone service to Texans who are over 65, disabled, heads of households, and whose incomes are at or below the federal poverty level. Because Tel-Assistance meets the requirements of the FCC's lifeline program, recipients are also entitled to a waiver or reduction of the SLC, which has remained at $3.50 per month since April 1989.

The Texas Department of Human Services (DHS), through a toll-free 800 number, supplies applications to those persons who believe they may be eligible for the service. DHS notifies the local exchange carriers (LECs) of the applicants who qualify, and the carriers begin providing the discount after determining that the applicant's telephone service arrangements meet the appropriate requirements.

LECs have been providing Tel-Assistance Service since September 1988. As of December 8, 1990, just under 36,000 persons had been found qualified by the DHS to receive Tel-Assistance.

LECs are reimbursed for the lost revenue associated with providing the 65 percent discount through the Universal Service Fund. Each local company produces monthly reports showing the number of Tel-Assistance recipients in its service territory and the corresponding amount the company is entitled to recover from the fund.

7. Substantive Rule 23.53 - Universal Service Fund (USF)

Mandated in Section 98 of PURA, the USF was originally designed to fund the Tel-Assistance program and an assistance program for LECs in high-cost rural service areas. The high-cost assistance program, discussed in the next section, has to date not been established. In addition to funding Tel-Assistance, however, since May 1990 the USF has funded a second major statewide program: the Dual-Party Relay Service, also known as Relay Texas. As discussed at greater length elsewhere, Relay Texas enables hearing- and speech-impaired Texans and other telephone subscribers to communicate through specially trained operators.

Each month the Texas Exchange Carrier Association (TECA), which has a contract with the Commission to administer the USF, collects USF monies from all telecommunications companies (both local and long-distance) operating in Texas and reimburses various entities for their costs relating to Tel-Assistance and/or Relay Texas. Specifically, USF monies reimburse the following: (1) Texas LECs for their lost revenues associated with Tel-Assistance; (2) the Relay Texas carrier for those costs of providing the service that are not recovered from the calling or called parties; (3) the Commission and TECA for the costs they incur in administering the USF, Tel-Assistance, and Relay Texas; and (4) the DHS for its costs relating to Tel-Assistance.

Tel-Assistance assessments for both local exchange and long-distance carriers are based on "access minutes of use," which LECs report to TECA each month for all carriers. Access minutes of use are also used to make Relay Texas assessments to long-distance carriers; however, the basis for such assessments to local companies is each company's share of the total number of basic local service access lines as of December 31 of the previous year. In accordance with Section 96A(d) of PURA, for the first year of Relay Texas 55 percent of the funds collected to support the service are levied on LECs. The Commission may thereafter alter this percentage annually.

Total monthly gross USF assessments have recently averaged close to $.5 million, split roughly evenly between Tel-Assistance and Relay Texas. About half of these gross assessments have been charged to LECs; net of reimbursements for Tel-Assistance discounts, the share of the amounts actually paid by such carriers is much lower. (However, many LECs, with no Tel-Assistance subscribers, receive no reimbursements.)

LECs have the option of recovering their Relay Texas assessments through a surcharge on their customers' bills. Such a surcharge would be determined by dividing the company's total Relay Texas assessment by the number of its customer access lines. Such a surcharge would currently amount to only a few cents.

Because the remaining USF assessments are proportional to a company's access minutes of use, any effects on competition are very likely minimal. Nevertheless, a number of long-distance companies have often been delinquent in making their USF payments to TECA, in some cases compiling debts over many months. The Commission has recently authorized the Attorney General's Office to file suit against some of the most flagrant non-contributors to the USF.

8. Substantive Rule 23.53(d) - High-Cost Assistance

The objective of Section 23.53(d) of the Commission's Substantive Rules is to provide financial assistance to those LECs which operate in high-cost rural service territories, and thereby keep local rates for those companies affordable. Section 98 of PURA grants the Commission the authority to determine the eligibility requirements for such assistance and to establish the formula that would be used to determine the amounts companies may receive.

LECs in Texas currently pool the revenues they collect from providing intraLATA toll service to consumers. Those revenues are reallocated among the LECs based upon a formula that reimburses each company's operating costs. The remaining revenues are allocated to each company based on its investment.

The local exchange industry supported the high-cost assistance provision of SB 444 so that local carriers in high-cost rural territories would be protected from potential future changes in these toll pooling arrangements. A significant change in the toll pooling process could greatly reduce the revenues some local carriers now receive, and consequently force those companies to seek higher local rates to compensate for those losses. High-cost assistance is aimed at preventing those rates from becoming unreasonably high.

In working with the Commission on the development of the high-cost assistance rule, representatives of the telephone industry stated that there is no current need for high-cost assistance to any local carriers in the state. Therefore, the Commission has deferred the development of the specific provisions of high-cost assistance until such time as the assistance is needed. Upon petition by any party, or at its own discretion, the Commission

may initiate a proceeding to establish the provisions of high-cost assistance. At that time the Commission would also determine the basis upon which telecommunications utilities would be assessed to finance high cost assistance.

9. Link Up America

In April 1987, the FCC expanded the lifeline assistance program to include "connection assistance" and initiated a program called "Link Up America." Texas was selected to be one of the four pilot areas for implementation of Link Up, along with Arkansas, West Virginia, and the District of Columbia. SWB served as the pilot company for the Texas program, which was approved by the Commission in September 1987 and by the FCC the following month.

Link Up America reduces the up-front charges for low-income households obtaining initial telephone service. Eligible households receive a reduction of 50 percent, up to $30, off the initial hook-up charges. Telephone companies recover this amount from a pool of funds administered through the National Exchange Carrier Association. In addition, the FCC aimed at reducing other up-front charges paid by Link Up recipients by encouraging Link Up providers to establish deferred payment programs and to reduce or waive security deposit requirements for customers who do not have poor credit histories.

State Link Up programs must meet the following requirements:

* participants must not be dependents under the age of 60;
* participants must meet state determined income criteria; and
* a combination of verification and self-certification may be used to determine that eligibility criteria have been met.

In Texas, the Commission determined that income eligibility could be established through two types of criteria: the receipt of certain public assistance benefits (such as food stamps or Aid to Families with Dependent Children), or proof of an income level below the federal poverty guidelines as demonstrated through a copy of the applicant's federal income tax return. The local telephone company reviews copies of relevant documents to verify that the applicant meets the income eligibility requirements established by the Commission. The dependency criterion is reviewed by the telephone company to the extent possible, but is generally subject to self-certification on the part of the applicant.

Over 40 tariffs, including those for the six largest LECs, have been filed to implement the Link Up America program in Texas.

E. STATUS OF COMPETITION

The nature of competition at the local exchange level is very different from competition in interexchange service. In the interexchange market the focus is on market share and carrier dominance of a market.

LECs face competition on a service-by-service basis. The issues require drawing a boundary between competitive and monopoly services. In line with this focus, this section contains a discussion of the status of competition in five areas of local exchange service:

* Non-Regulated Services
* Basic Telephone Service
* Access Service
* Intra-LATA Toll
* Non-Basic Telephone Services

1. Non-Regulated Services

Section 18(k) of PURA directs the Commission to include in this report the scope of competition in regulated telecommunications markets. It is important, however, to recognize that a large and clearly visible portion of the competitive activity affecting LECs today is in services that have been deregulated. A description of the status of competition in these deregulated services or markets will help focus the later discussion on competition in regulated service categories.

a. Customer Premises Equipment (CPE)

With the deregulation of CPE, numerous vendors of telephones and business communications systems have appeared on the scene, marketing increasingly advanced telecommunications equipment. Many LECs reported that they are experiencing competition for their optional service offerings due to the advanced technological nature of the CPE in today's market.

b. Inside Wiring

Competition in the premises wiring market continues to be most visible in systems for large customers. Small business and residential customers have yet to experience any significant competition in the provision of inside wiring except in circumstances where the consumer elects to install the wiring and save on the costs associated with installation.

c. Directory Publishing

Competition in the directory publishing arena, primarily concentrated in yellow page advertising and publication, continues to remain strong in large metropolitan areas. Although publication of directories targeted at specific markets has been discontinued, it appears that competition is taking hold in more rural areas.

Telephone company publishing is handled by separate subsidiaries of the LECs. These companies compete with each other and with non-telephone company publishers.

2. Basic Telephone Service

Basic telephone service is provided to residential customers, single-line business customers and large business customers. There is no significant competition for basic residential telephone service at this time, and there is only a limited degree of competition for basic service to business customers.

Commonly mentioned areas of potential competition for basic local exchange telephone service are shared tenant services, cable television, cellular services, other LECs and alternative access providers (see discussion at section III.E.3.c., below).

a. Shared Tenant Services (STS)

During the accelerated period of commercial real estate development in the early 1980s, an increasing number of new buildings were designed with an integrated technological package which included specialized telecommunications. A tenant is provided service through a PBX switch located in the building, and can obtain features such as voice messaging and alternative toll carrier selection. The STS provider obtains local service through PBX trunks provided by the LEC, and often obtains toll service from a number of IXCs. When an IXC furnishes the STS provider with direct trunk connection to its switch, the LEC will lose a portion of the applicable access revenues.

Businesses in the building obtain telephone service from the STS provider rather than obtaining distinctly separate telecommunications service directly from the telephone company. Although the telephone company is still providing the standard access lines to the building, fewer lines may be required and the LEC loses the opportunity to market optional services to the end user.

LECs have viewed this configuration as the competitive provision of local exchange service within the building or property. However, the Commission has ruled that the existence of STS arrangements cannot prohibit a subscriber from requesting and being granted the right to obtain telephone service from an LEC.

Once feared to be a significant area of competition, STS now appears to have only limited impact on local exchange company revenues. Only a few LECs indicate in their

responses to the LECDR that they face competition from STS providers. There are more than 100 shared tenant sites within the state.

b. Cable Television

Cable television (CATV, or Community Antenna Television) systems are another source of potential competition in the local exchange market. Because one network can potentially be used to transmit telephone communications, television programming and other information, it may be economically efficient in the long run to provide many services over the same facilities.

For a cable company to offer local exchange telephone service, it would be required to obtain a certificate of convenience and necessity (CCN) from the Commission to serve the area. To date, no such applications have been made in Texas.

There are federal restrictions, dating from the MFJ which governed the breakup of the Bell system, on telephone utilities' cross-ownership of television distribution systems within their service areas. The telephone industry lobbies consistently for the removal of these restrictions, but to date they remain in place.

Cable television networks do provide a limited amount of competition for local private data services. This issue is discussed below in Section III.E.2.b.

c. Cellular Service

Texas LECs do not provide cellular service as part of their regulated utility operations. The FCC licenses cellular service providers to serve particular areas. Each area can be served by an LEC affiliate and a non-LEC affiliate. The LEC affiliate does not necessarily serve in the area of its local exchange operation. For example, SWB is the LEC serving Austin, but a GTE affiliate provides the cellular service. Cellular telephone units are fully competitive and are available for purchase from many vendors. The primary concern in this market is the lack of many competitors (there are only two cellular providers licensed for any particular area). As a result, price competition may not be effective.

Virtually every LEC commenting on the status of competition in its service area voiced concern over the current threat or future implications for local exchange service and intraLATA toll posed by cellular services. While most LECs reported that no formal studies had been conducted and, therefore, the impact on revenues could not be quantified, 20 companies reported that competition does exist at this time.

Improved cellular technologies, however, may offer rural LECs new and less costly ways to provide local exchange service in the future. Currently, Dell Telephone Cooperative has introduced Time Division Multiple Access (TDMA) technology in its service area. TDMA allows more efficient use of the frequency spectrum allocated to a carrier. For instance, a carrier utilizing TDMA technology can serve about 100 voice

circuits in one megacycle of spectrum; traditional cellular carriers utilize about 20 megacycles to serve the same number of circuits.

d. Competition From Other LECs

The FCC has reversed a Commission order and allowed a large business customer to establish a private microwave link to another LEC's service area and obtain dial tone and switched services from that LEC. The U.S. Court of Appeals for the Dist. of Columbia Circuit upheld the FCC's reversal on September 22, 1989 (the Arco case). It is reasonable to expect other large business customers within the technological reach of another LEC to make similar substitutions if doing so would significantly lower their costs for telephone service.

Although LECs have established service area boundaries (CCNs), they may be faced with competition for high-revenue business customers by other nearby LECs.

3. Access Service

An LEC offers access service to IXCs wishing to make connections to the local exchange network to provide long-distance service. There are two major categories of access service offered by the LECs: switched access and special access. Switched access service allows connection of the IXCs to the local exchange switched network for the origination and termination of long-distance calls. Special access service consists of point-to-point dedicated circuits that are leased to connect the customer's premises with an IXC.

a. Switched Access

Each LEC charges an IXC a usage-sensitive rate to connect the subscriber to an incoming or outgoing interexchange call that uses the LEC's public switched network. When business customers generate a large volume of long-distance usage, however, a business decision can be made to establish a direct connection between the user's premises and the IXC's switching equipment, circumventing the local switched network. This practice is known as "bypass."

Competition in the provision of local access, while economically important, benefits a very small portion of customers. The vast majority of local exchange customers are dependent on the LEC's network for access to IXCs.

There are two predominant types of bypass. In the first type, a customer may choose to connect directly to the IXC switch by leasing dedicated private line circuits from the LEC. This form of bypass is known as "service bypass." Alternatively, a customer may decide to construct dedicated circuits (generally via a microwave system) between its business premises and the IXC switch, thereby circumventing all of the LEC's network facilities. This form of bypass is known as "facility bypass."

A customer may choose to bypass the LEC facilities for a number of reasons, including comparative costs or special service needs such as security, control, quality, flexibility, reliability, or capacity for expansion. When a decision is made to bypass the local network even though telephone company services are priced at cost, it is defined as "economic" bypass. If LEC access service prices depart from reasonable costs because of inappropriate cost allocations between services and a customer chooses to leave the local network as a result, it is known as "uneconomic" bypass.

In establishing interstate access charges in 1984, the FCC recognized the potential for uneconomic bypass if switched access rates were set too high. The FCC's solution has been to shift revenue recovery from usage-sensitive access charges to the Subscriber Line Charge (SLC) assessed to end users. The interstate SLC is currently set at $3.50 per month for residential customers. Because of the SLC, interstate switched access rates have been lowered to a level which should deter uneconomic bypass.

While the Texas PUC has opposed the FCC's imposition of the interstate SLC on subscribers, the PUC has recognized that there are significant access charge pricing concerns in this state. Intrastate switched access rates in Texas remain among the highest in the nation, although the combined effect of two recent rate cases involving GTE and SWB has been to reduce access rates significantly.

b. Special Access

LECs also describe a third type of bypass which occurs when an end user constructs a private transmission system to handle its own internal communication needs. These systems are not necessarily a substitute for LEC access services, but may replace a variety of LEC services. Studies on bypass often include information on such private systems and describe them as "competition" to LECs since they represent either a loss or a foregone increase in the LEC's revenues. (Additionally, these end user networks may have excess capacity to sell, although there is little evidence of whether or to what degree that occurs.)

SWB is currently attempting to become more price and service- quality competitive through a tariff filing for Megalink III and 1.544 Access. Megalink III and 1.544 Access services are commonly referred to as DS-1 services. They are high capacity, point-to-point, digital services, used primarily for transmission of data at high speeds. SWB has segmented its customer market to target Megalink III to large business customers, and 1.544 Access for interexchange and cellular carrier customers. SWB has proposed market-based prices and different service quality options for its range of customers. The service quality options include network redundancy and a refund policy for channel failure in excess of four hours.

Network reliability has emerged as a major concern of large business customers since the crash of AT&T's network last year and the burning of Illinois Bell's Hinsdale central office near Chicago. For large business customers whose economic survival depends on a link to the telecommunications network, routing alternatives are attaining a high priority.

There are several forms of competition for the LECs' special access, or dedicated circuits generally connecting a customer's premises to an IXC. Most competition exists in the more densely populated areas operated by the largest LECs. Possible competitors described by LECs which would most likely represent special access competition are satellite networks, other privately owned microwave networks, and interexchange carriers.

c. Alternative Access Providers

Alternative Access Providers, or AAPs, are entering the marketplace in Texas' largest metropolitan areas, i.e., Houston and Dallas. AAPs typically provide dedicated connections between end users and IXCs. Their customers tend to be high-volume users of interexchange service. In some instances, AAP customers are more interested in system reliability and redundancy than in competitive pricing.

Currently, only a few AAPs operate in Texas: Metropolitan Fiber Systems, Inc. (MFS) and Phonoscope in Houston and MetroLink in Dallas. Teleport plans to operate in Houston and Dallas; MFS will expand its operations to Dallas, as well.

SWB has requested that the PUC enter a cease-and-desist order against these companies. The request is based on SWB's interpretation of the Commission's definition of local exchange service. Essentially, SWB is arguing that an AAP must receive a CCN prior to offering such services.

The PUC will be examining this issue in several proceedings. SWB's request for a cease-and-desist order will go to hearing in May 1991. Prior to the hearing, the Commission will consider a Staff-proposed clarification of the PUC's definition of local exchange service. If the PUC amends the definition, there may be no need to litigate SWB's request for a cease-and-desist order. Additionally, the Commission may consider an MFS request to determine the extent to which SWB's network may be used by AAPs and the appropriate rates for such interconnection. In conjunction with the MFS request, the Commission may consider the extent to which the presence of AAPs in the access market necessitates additional regulatory flexibility for SWB and other LECs.

4. IntraLATA Toll

The divestiture of the Bell Operating Companies by AT&T on January 1, 1984, changed the way in which long-distance calls are handled. As a result of the MFJ, 16 local access and transport areas (LATAs) were created in Texas. Additionally, two special marketing areas (SMAs) were created by the consent decree under which GTE acquired the predecessor to US Sprint. (See Exhibit II-A for a map of Texas LATAs and SMAs.) For convenience, in this report LATA is used as a generic term referring to either a LATA or an SMA.

When a customer dials a 1 + call to a destination in another LATA (an interLATA call), it is completed by that customer's designated long-distance company. However, when that customer makes a long-distance intraLATA call--for instance, Austin to Dripping Springs--a 1 + call "defaults" to the LEC. In equal access areas, customers can have an intraLATA call completed by their IXC by using their IXC's "10XXX" code. For example, one may dial 10288 to reach AT&T's network. The same situation exists with intraLATA WATS traffic. Commission policy, confirmed by the Commission's order in Docket 7330, has been to reserve 1 + intraLATA WATS traffic to the LEC. A customer can route such traffic to an IXC by dialing the IXC's 10XXX code, if the IXC provides such access.

In non-equal access areas an OCC can provide intraLATA services along with interLATA long-distance for MTS, WATS and 800 calls. Customers must dial up to 23 digits to complete a call using these IXCs, however. Because of the type of access AT&T uses, it handles only limited amounts of intraLATA traffic.

A comprehensive study of the intraLATA market has not been performed by Commission Staff. However, rate comparisons made for selected areas of the state have revealed that LEC rates for intraLATA toll, which are set by the Commission, are significantly higher than IXC rates for calls between the same two points. This rate discrepancy results from the Commission's pursuit of the goal of universal service. Universal service is defined in the Commission's order in Docket 7330 as "making basic local exchange service affordable to the largest percentage of the population that one can reasonably achieve." The Commission also found in that case that the goal of universal service is furthered by pricing non-basic local exchange services (such as intraLATA toll) substantially in excess of their direct long run incremental costs. The OCCs, whose rates are regulated only by market forces, tend to set their rates at long run incremental cost.

5. Non-Basic Telephone Services

This category includes all the regulated services provided by LECs other than basic telephone service. It is in this category that most commission activity regarding competitive services is focused.

a. Private Line Service

LECs serving major metropolitan areas feel competition in the local and intraLATA private line service market more keenly than do LECs serving rural areas. Private line service is distinguished from special access through its ultimate usage by the customer: private line circuits originate and terminate wholly within a LATA, while special access circuits are connected to interLATA facilities. Competitors for private line service include cable television, privately owned networks, and shared tenant service providers.

Cable television networks provide a limited amount of competition for local private line data services, and cable providers have expressed an interest in expanding this service.

In large part, the technology provided by cable networks for data transmission is coaxial cable. While it may provide a satisfactory service, it is not on the same level as fiber optic cable in terms of capacity or clarity.

Private network service arrangements have been expanding in the larger metropolitan areas and could be considered competition in the local and intraLATA private line market. This is discussed more fully in Section III.E.3.c. Alternate Access. With private networks, buildings may be connected by a dedicated private line network for point-to-point communications within city limits. Although these networks are used primarily to connect end users with IXCs, they can also be used by businesses such as banks or travel-related companies that have extensive communications with nearby peripheral offices.

Shared tenant service arrangements may provide voice, data, and video connections within the STS premises that eliminate the need for LEC-provided private line service.

It is difficult to assess the scope of competition in the local and intraLATA private line market. However, there appears to be at least a limited degree of competition from cable TV providers and the potential for significant competition from alternate access providers.

b. Central Office-Based PBX-Type Services (Centrex)

Centrex service is a central office-based PBX-like service, typically utilizing digital technology. This service allows a customer to have PBX-type or key set-type functions without purchasing and maintaining the PBX or key set equipment. A private branch exchange (PBX) is a privately owned telephone system with its own internal telephone arrangement, which consists of a switching system, cable, and telephone sets. This arrangement serves an individual organization and provides for connections to a public telephone exchange. A PBX typically resides at the customer's location. The basic functions of a PBX are concentration and intercommunication.

Because a PBX can function much like a telephone company's central office, it can provide many of the same or similar service functions as those provided by a telephone company's Centrex service. PBX providers can provide both an array of optional calling features (e.g., call hold, call forwarding, call cueing, message waiting, conference calling, call pickup, speed calling, etc.) and lower prices associated with PBX hardware and CPE (e.g., telephone handsets). As a result of deregulation of CPE, technological advances in the industry, and lower prices on equipment, the PBX market is able to cater to large, medium and small business customers. These factors have also created numerous customer equipment vendors and suppliers in the state.

An LEC can offer its regulated Centrex service to customers, competing directly with the unregulated PBX market. SWB estimates that its Centrex services have only 12.3 percent of the market, but because much of the PBX and PBX-type service is provided by unregulated entities, the Commission has not verified this data.

To permit LECs to compete in markets for services like Centrex, Section 23.27 of the Commission's Substantive Rules grants rate-setting flexibility for services found by the Commission to subject to significant competition. The LECs have used this rate-setting flexibility (originally granted under PURA, Section 18(e)(3)(A)) to compete for large contracts (200 stations or more). On January 4, 1991, SWB filed an application pursuant to Rule 23.27 requesting rate-setting flexibility for Centrex service for sytstems of 75 to 200 stations.

In granting rate flexibility, the Commission must ensure that customers of the LEC's regulated local exchange services do not subsidize the provision of competitive services. Substantive Rule 23.27 contains safeguards against this cross-subsidization. In the case of Centrex service, the price must recover 105 percent of the long run incremental cost associated with provision of the service.

c. Central Office-Based Local Area Network Services (C.O. LAN)

A local area network (LAN) is a communications path that connects several computers or a series of cathode ray terminals (CRTs) to a host computer. A LAN allows all of the users in the network to share files and resources, such as memory capacity, and allows communication between computers in the network. One type of LAN might be located within a single office and connect several personal computers together. Another type of LAN might connect a large number of CRTs in different locations to one large host computer.

A LAN usually consists of an access element and a data switching element. The access element provides an electrical path from the individual computers or terminals to the data switching element. The data switching element provides a connecting link between the access elements that it serves.

A central office local area network (C.O. LAN) uses local telephone loops as the access element to a special data switch located at the central office. This special data switch is the switching element for the LAN. In order to transmit the data over the local telephone loop, an integrated voice/data multiplexer (IVDM) is required at the customer's location and in the central office. This multiplexer allows the voice portion of a call to use the same transmission path as the data simultaneously. However, it is not necessary to combine voice and data to have a C.O. LAN, but since the local loop is already there, it can be used to provide voice and data transmission.

In the provision of C.O. LAN service, an LEC is only providing the connectivity via the data switching and access elements between the various data components needed in a LAN arrangement.

The extent of competition in the provision of C.O. LAN service is being determined by the Commission (see section III.D.3., above).

d. Pay Telephone Service

Since the FCC opened pay telephone service to competition, there has been a proliferation of private pay telephone vendors and service providers in Texas. These privately owned pay telephones are often referred to as "customer-owned coin-operated telephones" (COCOTs) or "private pay telephones" (PPTs).

Literally anyone may buy a PPT and go into business. The growth of the industry has been impressive. SWB provided the following statistical data on the number of PPTs located within its service area.

Date	SWB Public Pay Telephone Stations	Private Pay Telephone Stations
June 1985	97,611	580
June 1986	96,078	4,961
June 1987	92,996	8,281
June 1988	86,677	13,190
September 1988	86,285	14,214
September 1989	85,906	18,214
September 1990	87,918	22,867

A microprocessor component now exists that allows PPTs to record and process the information necessary to complete and bill certain operator service calls (e.g., calling card and collect calls) without external assistance. This technology often is referred to as store-and-forward technology. In effect, the PPT owner now can operate as an operator service provider (OSP) in these instances. However, PPT owners are exempt from the definition of telecommunications utilities in PURA Section 3(c)(2)(A). Those who use store-and-forward technology are thus exempt from the PUC's OSP regulation, despite the fact that the OSP legislation (PURA Section 18A) apparently was meant to include automated operator services.

In addition to store-and-forward technology, PPT manufacturers have introduced voice messaging. After a pay phone user receives a busy signal or no answer, a digitized voice asks if he/she wants to leave a message. If the answer is yes, the caller is routed to a message delivery system, which records the caller's message. Calls are placed at regular intervals for a pre-set period of time until someone answers, at which time the recorded message is played.

e. Billing and Collection Services

The FCC has detariffed interstate billing and collection services. Several Texas LECs have sought intrastate deregulation to meet competition for this service. Section 18(e)(3)(B) of PURA, which authorizes customer-specific contracts for some services, also considers billing and collection service to be subject to significant competition. Substantive

Rule 23.27 gives the LECs the flexibility to set rates for the provision of services necessary to compete for billing and collection customers.

f. Mobile Telephone Service

Many LECs continue to provide the older version of radio-telephone service (Improved Mobile Telephone Service, IMTS) as a regulated tariff offering. Using the radio technology of the 1960s, this service is widely used throughout Texas, primarily in rural areas. While it utilizes less advanced technology and offers fewer features than its 1980s cousin cellular service, it nonetheless remains a viable offering.

However, it would appear that technological advancement and the decline in the continued manufacture of IMTS type equipment may eventually result in its decline as a viable service offering. The lack of availability of replacement parts and the continued increase in maintenance costs make the continued offering of this service questionable and the probability of allocating this portion of the radio spectrum to other types of communication a possibility unless substantial investment in upgrades of existing equipment are made.

In most areas, LEC-provided IMTS service has a substantial amount of competition from either cellular systems or from independent, non-regulated mobile telephone providers. Apparently there is no region in the state of Texas where this service is not competitive.

g. Enhanced Services and Open Network Architecture (ONA)

In the 1960s, the FCC initiated a proceeding in an attempt to establish an appropriate regulatory framework for the provision of communications and data processing services. This proceeding is referred to as Computer Inquiry I (Computer I). In Computer I, the FCC determined there were three classifications of computer and telecommunications services, based on technical and functional characteristics:

> Data processing service - a service in which computer information (raw data) is changed and/or manipulated into some other form. The FCC determined that these services were already highly competitive and thus made no attempt to regulate them.
>
> Communications service - a service regulated by the FCC as a common carrier offering under Title II of the federal Communications Act of 1934. An example of a communications service is provision of the path or paths connecting computer terminals to a central processing computer.
>
> Hybrid service - an offering that combines access to data processing and message switching (communications). These services became a gray area

because the technology to integrate many of the processing and communications functions was evolving.

As part of the outcome of Computer I, the FCC permitted the LECs, excluding the RBOCs, to provide data processing services subject to a structural separations requirement. The FCC did not establish requirements for AT&T and its subsidiaries because it assumed that they were precluded from offering any type of data processing services by the terms of the 1956 Antitrust Consent Decree then in effect.

In 1977, the FCC initiated another rulemaking, Computer II. In this proceeding, the FCC determined that the data processing services should remain unregulated, but it redefined the "hybrid" definition and changed it to "enhanced services." The FCC also substituted "basic services" for the term "communications." The new definitions adopted in Computer II were:

> Basic services - those services limited to the provision of transmission capacity for the movement of information. Data processing, computer memory or storage-and-switching techniques can be components of a basic service if they are used solely to facilitate the movement of information.
>
> Enhanced services - simply put, a service is "enhanced" if information must be processed and the subscriber interacts with the information. This does not include changing the form or content of the information, which is considered data processing service.

In Computer II, the FCC authorized the LECs to offer "enhanced services". All the LECs (except the RBOCs) were authorized, but not required, to provide enhanced services on an integrated basis. AT&T and the RBOCs could offer enhanced services but only through structurally separated subsidiaries.

In 1985, the Federal Communications Commission (FCC) initiated a rulemaking to re-examine the policy it had adopted in Computer II. This proceeding is referred to as Computer III. In this proceeding, the FCC further refined its definitions of basic and enhanced services as follows:

> Basic services - transparent network services such as signalling and supervisory functions. These allow for the movement of information (voice or data) over common carrier facilities.
>
> Enhanced services - non-transparent network services. These services allow for protocol conversion, content restructuring, and subscriber interaction with stored information, such as retrieving messages from a voice mail system. Unlike data processing services, enhanced services do not change the form or content of the data or message that is being processed.

The basic policy objectives of Computer III were (1) to allow AT&T and the seven RBOCs to offer enhanced services, (2) to eliminate the structural separations requirement when enhanced services are provided on an "equal access" basis to competitors, and (3) to ensure that AT&T and the RBOCs' enhanced services access are not more favorable than their competitors' access.

In order to accomplish these objectives, the FCC created the concept of Open Network Architecture (ONA). ONA was intended to unbundle the RBOCs' basic network services to create "building blocks" which could then be purchased by any firm wanting to offer enhanced telecommunications services. In pursuit of this goal, Computer III required that AT&T and each of the RBOCs file a plan for Comparably Efficient Interconnection (CEI) to the network for other firms offering similar enhanced services. The creation of CEI building blocks, once filed, would give the RBOCs and AT&T flexibility to administer these components as needed. The FCC believed at the time they made this policy that competitors would pay for only those services that they use in providing enhanced services.

It should be noted that under the ONA regime, the RBOCs are not required or mandated by the FCC to offer enhanced services on an integrated basis. After all the ONA requirements have been met and the FCC will allow the RBOCs to offer enhanced services on an integrated basis. There is no federal restriction today that prohibits the RBOCs from offering enhanced services on a structurally separated basis.

In February 1988, the seven RBOCs and AT&T filed their proposed ONA plans as required by the FCC. Since that time, the FCC has released several orders requiring AT&T and the RBOCs to amend their respective plans. However, in June of 1990, the Ninth District Court of Appeals in San Francisco overturned the FCC's Computer III order and remanded it to the FCC. The Court specifically ordered the FCC to re-examine its decision to allow the RBOCs to offer enhanced services on an integrated basis with their regulated services and to explain why the FCC had suddenly departed from its separate subsidiary requirement. The Court also reprimanded the FCC for preempting the state regulatory agencies' jurisdiction in regard to ONA and required it use a more narrow interpretation of the Communications Act of 1934 for pre-emption of state jurisdictions.

Finally, in December of 1990, the FCC issued two orders. One order reinstates the FCC's requirement that the RBOCs offer unbundled services. The other order is a rulemaking to address the separate subsidiary and jurisdictional issues, as required by the Court.

The ONA process is an evolutionary one which will require on-going monitoring and re-examination of issues as the ONA concept is implemented and grows.

F. IMPACT OF COMPETITION

From a regulatory perspective, the presence of or potential for competition in the local exchange presents a number of complex issues. First, although the services used by large customers are more competitively provided, the Commission wants to assure that the benefits of competition are spread as evenly as possible across all users--rural and urban, residential and business.

Second, the emergence of competition tends to drive rates for service toward cost. Regulators must analyze and control the regulated utilities' assignment of costs to prevent cross-subsidization while at the same time retaining safeguards for the preservation of universal service.

A current assessment of the local exchange telecommunications industry in Texas would include the following observations:

Rates for basic local telephone service are low compared to rates of other states, and have not changed significantly in recent years.

LECs continue to upgrade their networks to incorporate technological advancements.

The quality of service has improved, and more services are available.

Competition is not necessarily the major force propelling the industry as a whole to this position, however. Indeed, regulatory requirements and technological advancements are likely to have been more important factors. With that in mind, additional discussion of the impact, in conjunction with other factors, follows:

1. Rural vs. Urban Areas

The majority of Texas LECs are small companies serving largely rural areas. Thirty-four of the 52 reporting LECs serve fewer than ten access lines per square mile of service area. Only 13 of the 52 reported having in excess of 10,000 total access lines. The equal access data included in this report illustrates the rural nature of the areas served by most of Texas' LECs.

When the LECs were asked to describe the effect competition has had on rural areas, several responded that rural customers have benefitted from the existence of competition. Competition in the deregulated CPE market has provided rural customers with the ability to shop around for their own residential or business telephone equipment. However, while there are alternatives for the rural customer, some of the LECs indicated that the choices may also serve to frustrate and confuse many customers.

Many of the competitive services described in this report are not found in rural Texas, perhaps because the lower population density of rural areas renders such service offerings

economically unfeasible. This does not mean, however, that rural areas have not received the benefit of technological advancements. In fact, principally because of the low population density, some of the smaller LECs serving these areas have been able to upgrade their entire networks more quickly than the larger LECs.

The regulatory process presents a greater relative financial burden for smaller LECs, which generally serve rural areas. In recognition of this burden, PURA Section 43(b) provides a streamlined procedure whereby LECs with fewer than 5,000 access lines may implement limited rate changes.

A Commission survey shows that the average total revenue recoverable pursuant to this authority is approximately $10,000. However, a majority of the eligible companies indicated that the cost of implementing any changes would exceed the amounts recoverable under the percentage caps. Several companies indicated that expanding the maximum percentage increases on certain charges, such as bad check charges, would allow them to recover the actual cost of performing these functions.

2. Residential vs. Business

Residential users are less likely than business customers to have services other than basic telephone service. Therefore, competition in the provision of local exchange services does not affect most residential customers.

Business customers utilize the services that are experiencing greater competition. Business customers may also find it economically justifiable to build networks of their own, thereby circumventing the public switched network. Data are not available to measure quantitatively the impact of competition on these classes of telecommunications customers.

3. Universal Service

PURA sets forth the objective that Texas have adequate and efficient telecommunications service available to all citizens of the state at just, fair and reasonable rates.

Universal service is a particularly important objective in Texas, where only 90 percent of households have telephone service, well below the national average of 93.3 percent. (See Exhibit III-D). In its rate-setting decisions for LECs, the Commission has kept local exchange rates as low as possible, in part to promote the goal of universal service. The Commission's order in the SWB rate case guarantees that customers of the state's largest telecommunications utility will not experience increases in basic local service rates for the next four years. The order in this case also resulted in expanding the Lifeline program, which helps provide basic telecommunications service to low-income households.

Besides the monthly cost of service, a significant deterrent to universal service is the high initial charge associated with obtaining telephone service. These charges were brought down in the SWB rate case.

The emergence of competition, and the resulting pressures on ratemaking, bring to light critical issues regarding universal service. Universal service in Texas has traditionally been supported by pricing basic local service below its cost. Competition inevitably forces prices toward cost. Mechanisms must be found to balance the benefits of competition with the pressure for cost-based pricing.

IV. RECOMMENDATIONS FOR FUTURE LEGISLATIVE ACTIONS

In general, the Commission feels that PURA provides a solid and appropriate framework for regulation of telecommunications utilities in Texas. The Commission's mandate in PURA is strong enough to permit effective regulation of the market and flexible enough to permit the Commission to respond to changes in the industry.

There are, however, two shortcomings of PURA that the Commission would like the Legislature to address:

A. REFUNDS AND TEMPORARY RATES, PURA Sections 42 and 43

Section 42 of PURA authorizes the Commission to investigate the reasonableness of the rates of a public utility and to set rates that are just and reasonable. Section 43 specifies the procedure for a rate case which is requested by a public utility.

In the telecommunications industry, it is usual for real (price-level-adjusted) service costs to fall over time. In such a situation, holding rates at a constant nominal (dollar) amount over time will allow a utility's rate of return to rise. For this reason, telecommunications utilities often benefit from regulatory lag.

A utility enjoying decreasing service costs and an increasing rate of return is unlikely to file a rate case under Section 43 of PURA. Typically a rate case involving a company in this situation will be brought by the general counsel under Section 42. Unless temporary rates are implemented to begin flowing the benefits of the lower service costs to ratepayers, regulatory lag continues during the pendency of the rate case. The recent SWB rate case, Docket 8585, is an excellent example of such a rate case.

The General Counsel requested temporary rates in Docket 8585. Although the administrative law judges in that docket supported the policy of temporary rates in Section 42 proceedings, they held that Section 42 as currently written does not allow temporary rates. The Commission did not rule on General Counsel's appeal of the administrative law judges' holding.

Specific statutory authority would remove any doubt surrounding the Commission's ability to protect ratepayers from regulatory lag when a utility is overearning. The Commission, therefore, recommends that Section 42 of PURA be amended to authorize the Commission to order temporary rates.

Additionally, Section 43 of PURA does not contain a specific provision for refunding temporary rates. Although the Commission's rules authorize such refunds, 16 T.A.C. section 21.84(c), the Commission believes it would be preferable to have a clear

statutory mandate to order refunds. The Commission therefore recommends that Section 43 of PURA be amended to authorize explicitly the refund of temporary rates.

B. EXTENSION OF THE 185-DAY LIMIT FOR A MARKET DOMINANCE CASE, PURA Section 100(f)

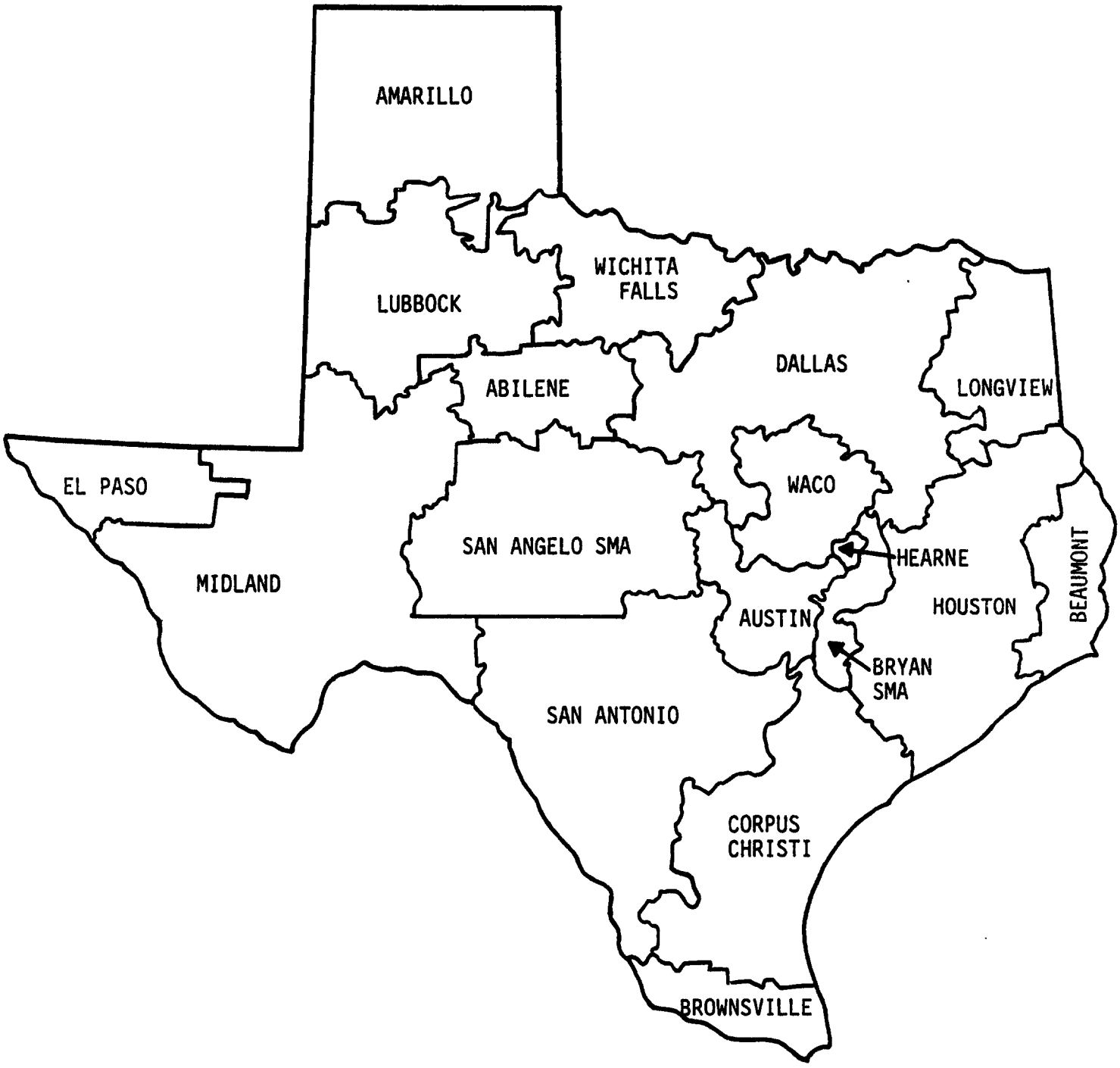
Section 100(f) of PURA specifies the procedure by which a dominant IXC may seek to be declared nondominant. This subsection requires the Commission to rule on a petition for determination of non-dominance within 185 days of its filing. Since a market dominance case can be complex and lengthy, and because such a case has important implications for ratepayers and other IXCs, the Commission recommends that this 185-day period be extended two days for each day of actual hearing on the merits of the case.

V. LIST OF ACRONYMS

AAP	Alternative Access Provider
AT&T	American Telephone & Telegraph Company
CATV	Cable Television or Community Antenna Television
CEI	Comparably Efficient Interconnection
CCN	Certificate of Convenience and Necessity
COCOT	Customer-Owned Coin-Operated Telephone
C.O. LAN	Central Office-Based Local Area Network
CPE	Customer Premises Equipment
CRT	Cathode Ray Tube
EMS	Extended Metropolitan Service
FCC	Federal Communications Commission
FGA	Feature Group A
FGB	Feature Group B
FGC	Feature Group C
FGD	Feature Group D
GTE	GTE Corporation
GTESW	GTE Southwest, Inc.
IMTS	Improved Mobile Telephone Service
IVDM	Integrated Voice/Data Multiplexer
IXC	Interexchange Carrier
IXCDR	Interexchange Carrier Data Report
LATA	Local Access and Transport Area
LEC	Local Exchange Carrier or Local Exchange Company
LECDR	Local Exchange Company Data Report
MCI	MCI Telecommunications Corporation
MFJ	Modified Final Judgment
MFS	Metropolitan Fiber Systems, Inc.
MTS	Message Telecommunications Service
OCC	Other Common Carrier
OCP	Optional Calling Plan
ONA	Open Network Architecture
OSP	Operator Service Provider
PBX	Private Branch Exchange
PPT	Private Pay Phone
PUC	Public Utility Commission of Texas
PURA	Public Utility Regulatory Act
RBOC	Regional Bell Operating Company
SLC	Subscriber Line Charge
SMA	Special Marketing Area
STS	Shared Tenant Services
SWB	Southwestern Bell Telephone Company
TDD	Telecommunications Device for the Deaf
TDMA	Time Division Multiple Access
TECA	Texas Exchange Carriers Association
USF	Universal Service Fund
WATS	Wide Area Telecommunications Service

EXHIBITS

TEXAS LATAs and SMAs



TEXAS INTEREXCHANGE CARRIERS
IXC GROSS REVENUES ($)
Fourth Quarter 1988

	$	Percent
MTS-TYPE		
AT&T:	194,849,000	64.7%
Others:	106,084,831	35.3%
Subtotal:	300,933,831	100.0%
Number of Others:	42	
WATS-TYPE		
AT&T:	7,093,000	26.0%
Others:	20,223,990	74.0%
Subtotal:	27,316,990	100.0%
Number of Others:	18	
PRIVATE LINE (analog & digital)		
AT&T:	17,336,000	63.8%
Others:	9,817,740	36.2%
Subtotal:	27,153,740	100.0%
Number of Others:	8	
VIRTUAL PRIVATE LINE		
AT&T:	845,000	*
Others:	*	*
Subtotal:	*	100.0%
Number of Others:	*	
800 SERVICE		
AT&T:	30,636,000	81.0%
Others:	7,167,604	19.0%
Subtotal:	37,803,604	100.0%
Number of Others:	12	
OTHER IX SERVICES		
AT&T:	865,000	*
Others:	*	*
Subtotal:	*	100.0%
Number of Others:	*	
TOTAL GROSS REVENUES		
AT&T:	251,624,000	63.5%
Others:	144,719,388	36.5%
TOTAL:	396,343,388	100.0%

Notes: This report includes information submitted as of February 9, 1990, and may be subject to change if companies submit additional or revised data.

An asterisk (*) has been used instead of the actual number to insure confidentiality when three or fewer carriers reported.

AGGREGATED INTEREXCHANGE CARRIER DATA REPORT (TEXAS)
1989 IXC GROSS REVENUES BY QUARTER

	89-1		89-2		89-3		89-4	
	$	PERCENT	$	PERCENT	$	PERCENT	$	PERCENT
MTS-TYPE								
AT&T:	193,944,000	65.3%	200,053,000	64.8%	203,618,000	64.2%	198,224,000	63.7%
Others:	103,158,905	34.7%	108,593,361	35.2%	113,487,127	35.8%	112,968,785	36.3%
Subtotal:	297,102,905	100.0%	308,646,361	100.0%	317,105,127	100.0%	311,192,785	100.0%
# Others:	65		67		67		68	
WATS-TYPE								
AT&T:	7,542,000	23.5%	5,101,000	18.4%	5,930,000	21.3%	5,547,000	21.1%
Others:	24,487,284	76.5%	22,647,315	81.6%	21,907,978	78.7%	20,735,076	78.9%
Subtotal:	32,029,284	100.0%	27,748,315	100.0%	27,837,978	100.0%	26,282,076	100.0%
# Others:	22		23		23		24	
PRIVATE LINE ** (Analog & Digital)								
AT&T:	15,340,000	85.1%	15,348,000	85.0%	12,917,000	82.9%	14,188,000	83.9%
Others:	2,695,375	14.9%	2,702,186	15.0%	2,667,900	17.1%	2,731,635	16.1%
Subtotal:	18,035,375	100.0%	18,050,186	100.0%	15,584,900	100.0%	16,919,635	100.0%
# Others:	15		15		15		15	
VIRTUAL PRIVATE LINE								
AT&T:	*	35.6%	*	67.6%	*	70.1%	*	42.5%
Others:	*	64.4%	*	32.4%	*	29.9%	*	57.5%
Subtotal:	*	100.0%	*	100.0%	*	100.0%	*	100.0%
# Others:	*		*		*		*	
800 SERVICE								
AT&T:	33,667,000	76.5%	34,014,000	73.9%	34,673,000	72.0%	33,866,000	70.3%
Others:	10,369,279	23.5%	12,027,425	26.1%	13,506,189	28.0%	14,308,646	29.7%
Subtotal:	44,036,279	100.0%	46,041,425	100.0%	48,179,189	100.0%	48,174,646	100.0%
# Others:	29		30		31		34	
OTHER SERVICES								
AT&T:	*	83.3%	*	82.7%	*	78.6%	892,000	75.7%
Others:	*	16.7%	*	17.3%	*	21.4%	285,754	24.3%
Subtotal:	*	100.0%	*	100.0%	*	100.0%	1,177,754	100.0%
# Others:	*		*		*		5	
TOTAL GROSS REVUNUES								
AT&T:	252,360,000	63.9%	257,397,000	63.6%	260,276,000	63.0%	254,820,000	62.3%
Others:	142,597,158	36.1%	147,095,368	36.4%	152,763,847	37.0%	153,878,938	37.7%
TOTAL:	394,957,158	100.0%	404,492,368	100.0%	413,039,847	100.0%	408,698,938	100.0%

Notes:

This report includes information submitted as of November 6, 1990, and may be subject to change if companies submit additional or revised data.

An asterisk(*) has been used instead of the actual number to indicate that 3 or fewer carriers reported. This is necessary to ensure that company-specific data are not directly or indirectly revealed, contrary to the assurance of confidentiality made in the Data Report.

** Two IXCs are unable to identify intrastate private line revenues. For this reason, private line revenues of 'Others' may be severely understated.

AGGREGATED INTEREXCHANGE CARRIER DATA REPORT (TEXAS)
1990 IXC GROSS REVENUES BY QUARTER

	90-1		90-2		90-3		90-4	
	$	PERCENT	$	PERCENT	$	PERCENT	$	PERCENT
MTS-TYPE								
AT&T:	194,846,000	67.5%	205,964,000	67.0%				
Others:	93,889,729	32.5%	101,409,512	33.0%				
Subtotal:	288,735,729	100.0%	307,373,512	100.0%				
# Others:	40		41					
WATS-TYPE								
AT&T:	5,672,000	34.0%	4,902,000	30.6%				
Others:	11,021,412	66.0%	11,102,127	69.4%				
Subtotal:	16,693,412	100.0%	16,004,127	100.0%				
# Others:	19		20					
PRIVATE LINE ** (Analog & Digital)								
AT&T:	13,663,000	79.7%	13,464,000	78.4%				
Others:	3,480,992	20.3%	3,705,456	21.6%				
Subtotal:	17,143,992	100.0%	17,169,456	100.0%				
# Others:	10		10					
VIRTUAL PRIVATE LINE								
AT&T:	*	38.9%	*	42.0%				
Others:	*	61.1%	*	58.0%				
Subtotal:	*	100.0%	*	100.0%				
# Others:	*		*					
800 SERVICE								
AT&T:	35,072,000	69.3%	35,728,000	67.2%				
Others:	15,540,584	30.7%	17,455,369	32.8%				
Subtotal:	50,612,584	100.0%	53,183,369	100.0%				
# Others:	18		18					
OTHER SERVICES								
AT&T:	*	19.5%	*	18.9%				
Others:	*	80.5%	*	81.1%				
Subtotal:	*	100.0%	*	100.0%				
# Others:	*		*					
TOTAL GROSS REVUNUES								
AT&T:	254,111,000	65.4%	266,149,000	64.7%				
Others:	134,184,210	34.6%	144,973,915	35.3%				
TOTAL:	388,295,210	100.0%	411,122,915	100.0%				

Notes:

This report includes information submitted as of January 3, 1991, and may be subject to change if companies submit additional or revised data.

An asterisk(*) has been used instead of the actual number to indicate that 5 or fewer carriers reported. This is necessary to ensure that company-specific data are not directly or indirectly revealed, contrary to the assurance of confidentiality made in the Data Report.

** Two IXCs are unable to identify intrastate private line revenues. For this reason, private line revenues of 'Others' may be severely understated.

TEXAS INTEREXCHANGE CARRIERS
IXC NUMBER OF CUSTOMERS
(As of 12/31/88)

	MTS-TYPE	WATS-TYPE	PRIVATE LINE (analog & digital)	VIRTUAL PRIVATE LINE	800 SERVICES
BUSINESS					
AT&T:	387,119	1,632	1,322	58	30,857
Others:	357,623	11,114	1,301	*	*
Subtotal:	744,742	12,746	2,623	*	*
Number of Others:	44	17	11	*	*
OTHER IXCs					
AT&T:	0	0	0	0	0
Others:	12	44	*	0	*
Subtotal:	12	44	*	0	*
Number of Others:	4	8	*	0	*
RESIDENTIAL					
AT&T:	5,654,374	0	0	0	0
Others:	1,057,534	*	0	0	*
Subtotal:	6,711,908	*	0	0	*
Number of Others:	34	*	0	0	*
TOTAL CUSTOMERS					
AT&T:	6,041,493	1,632	1,322	58	30,857
Others:	1,415,169	*	*	*	*
TOTAL:	7,456,662	*	*	*	*

Notes:

This report includes information submitted as of February 9, 1990, and may be subject to change if companies submit additional or revised data.

An asterisk (*) has been used instead of the actual number to insure confidentiality when three or fewer carriers reported.

AGGREGATED INTEREXCHANGE CARRIER DATA REPORT (TEXAS)

IXC NUMBER OF CUSTOMERS
(As of 12/31/89)

	MTS-TYPE	WATS-TYPE	PRIVATE LINE ANA/DIG	PRIVATE LINE VIRTUAL	800 SERVICES
BUSINESS					
AT&T:	386,026	1,280	1,101	58	22,315
Others:	506,887	35,325	1,693	*	25,698
Subtotal:	892,913	36,605	2,794	*	48,013
Number of Others:	67	22	17	*	40
OTHER IXCs					
AT&T:	**	**	**	**	**
Others:	216	129	96	*	93
Subtotal:	216	129	96	*	93
Number of Others:	8	13	6	*	4
RESIDENTIAL					
AT&T:	5,792,673	0	0	0	0
Others:	1,637,393	*	0	0	526
Subtotal:	7,430,066	*	0	0	526
Number of Others:	58	*	0	0	5
TOTAL CUSTOMERS					
AT&T:	6,178,699	1,280	1,101	58	22,315
Others:	2,144,496	*	1,789	10,806	26,317
TOTAL:	8,323,195	*	2,890	10,864	48,632

Notes:

This report includes information submitted as of October 31, 1990, and may be subject to change if companies submit additional or revised data.

An asterisk(*) has been used instead of the actual number to indicate that 3 or fewer carriers reported. This is necessary to ensure that company-specific data are not directly or indirectly revealed, contrary to the assurance of confidentiality made in the Data Report.

** AT&T is not able to report the number of its customers which are IXCs.

AGGREGATED INTEREXCHANGE CARRIER DATA REPORT (TEXAS)

IXC NUMBER OF CUSTOMERS
(As of 06/30/90)

	MTS-TYPE	WATS-TYPE	PRIVATE LINE ANA/DIG	PRIVATE LINE VIRTUAL	800 SERVICES
BUSINESS					
AT&T:	455,882	1,208	995	107	25,769
Others:	440,535	25,502	1,396	*	32,850
Subtotal:	896,417	26,710	2,391	*	58,619
Number of Others:	41	17	13	*	21
OTHER IXCs					
AT&T:	**	**	**	**	**
Others:	555	111	*	0	*
Subtotal:	555	111	*	0	*
Number of Others:	9	8	*	0	*
RESIDENTIAL					
AT&T:	5,663,118	0	0	0	0
Others:	1,845,517	*	0	0	1,658
Subtotal:	7,508,635	*	0	0	1,658
Number of Others:	34	*	0	0	5
TOTAL CUSTOMERS					
AT&T:	6,119,000	1,208	995	107	25,769
Others:	2,290,607	*	*	*	*
TOTAL:	8,409,607	*	*	*	*

Notes:

This report includes information submitted as of January 3, 1991, and may be subject to change if companies submit additional or revised data.

An asterisk(*) has been used instead of the actual number to indicate that 3 or fewer carriers reported. This is necessary to ensure that company-specific data are not directly or indirectly revealed, contrary to the assurance of confidentiality made in the Data Report.

** AT&T is not able to report the number of its customers which are IXCs.

TEXAS INTEREXCHANGE CARRIERS
IXC ORIGINATING MINUTES OF USE BY FEATURE GROUP (000's)
Fourth Quarter 1988

	MOU	Percent
FGA		
AT&T:	0	0.0%
Others:	18,985	100.0%
Subtotal:	18,985	100.0%
Number of Others:	21	
FGB		
AT&T:	0	0.0%
Others:	51,890	100.0%
Subtotal:	51,890	100.0%
Number of Others:	32	
FGC		
AT&T:	199,304	100.0%
Others:	0	0
Subtotal:	199,304	100.0%
Number of Others:	0	
FGD		
AT&T:	575,920	64.3%
Others:	320,018	35.7%
Subtotal:	895,938	100.0%
Number of Others:	34	
TOTAL MINUTES		
AT&T:	775,224	66.5%
Others:	390,728	33.5%
TOTAL:	1,165,952	100.0%

Note: This report includes information submitted as of February 9, 1990, and may be subject to change if companies submit additional or revised data.

AGGREGATED INTEREXCHANGE CARRIER DATA REPORT (TEXAS)

IXC ORIGINATING MINUTES (000'S) OF USE BY FEATURE GROUP
1989 By Quarter

	89-1		89-2		89-3		89-4	
	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT
FGA								
AT&T:	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Others:	19,409	100.0%	19,580	100.0%	19,807	100.0%	19,120	100.0%
Subtotal:	19,409	100.0%	19,580	100.0%	19,807	100.0%	19,120	100.0%
No. of Others:	34		34		33		34	
FGB								
AT&T:	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Others:	57,998	100.0%	59,363	100.0%	60,958	100.0%	57,274	100.0%
Subtotal:	57,998	100.0%	59,363	100.0%	60,958	100.0%	57,274	100.0%
No. of Others:	37		38		39		39	
FGC								
AT&T:	199,448	100.0%	201,388	100.0%	207,408	100.0%	198,044	100.0%
Others:	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Subtotal:	199,448	100.0%	201,388	100.0%	207,408	100.0%	198,044	100.0%
No. of Others:	0		0		0		0	
FGD								
AT&T:	608,249	61.5%	585,600	59.7%	602,749	58.5%	589,210	56.5%
Others:	381,370	38.5%	395,575	40.3%	426,752	41.5%	453,475	43.5%
Subtotal:	989,619	100.0%	981,175	100.0%	1,029,501	100.0%	1,042,685	100.0%
No. of Others:	51		52		52		52	
TOTAL MINUTES								
AT&T:	807,697	63.8%	786,988	62.4%	810,157	61.5%	787,254	59.8%
Others:	458,777	36.2%	474,518	37.6%	507,508	38.5%	529,860	40.2%
TOTAL:	1,266,474	100.0%	1,261,506	100.0%	1,317,665	100.0%	1,317,114	100.0%

Notes:

This report includes information submitted as of October 26, 1990, and may be subject to change if companies submit additional or revised data.

Minutes of use reported by IXCs do not include minutes subject to the WATS prorate credit.

AGGREGATED INTEREXCHANGE CARRIER DATA REPORT (TEXAS)

IXC ORIGINATING MINUTES (000'S) OF USE BY FEATURE GROUP
1990 By Quarter

	90-1		90-2		90-3		90-4	
	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT
FGA								
AT&T:	0	0.0%	0	0.0%				
Others:	8,190	100.0%	8,459	100.0%				
Subtotal:	8,190	100.0%	8,459	100.0%				
No. of Others:	19		19					
FGB								
AT&T:	0	0.0%	0	0.0%				
Others:	45,554	100.0%	47,732	100.0%				
Subtotal:	45,554	100.0%	47,732	100.0%				
No. of Others:	24		24					
FGC								
AT&T:	203,438	100.0%	201,373	100.0%				
Others:	0	0.0%	0	0.0%				
Subtotal:	203,438	100.0%	201,373	100.0%				
No. of Others:	0		0					
FGD								
AT&T:	595,822	62.1%	617,529	61.0%				
Others:	363,001	37.9%	393,987	39.0%				
Subtotal:	958,823	100.0%	1,011,516	100.0%				
No. of Others:	29		30					
TOTAL MINUTES								
AT&T:	799,260	65.7%	818,902	64.6%				
Others:	416,745	34.3%	448,823	35.4%				
TOTAL:	1,216,005	100.0%	1,267,725	100.0%				

Notes:

This report includes information submitted as of January 3, 1991, and may be subject to change if companies submit additional or revised data.

Minutes of use reported by IXCs do not include minutes subject to the WATS prorate credit.

TEXAS INTEREXCHANGE CARRIER MINUTES OF USE (MOU)
(In Thousands)

1986 By Quarter

	86-1		86-2		86-3		86-4	
	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT
AT&T:	806,266	72.9%						
Others:	300,169	27.1%						
TOTAL	1,106,435	100.0%						

1987 By Quarter

	87-1		87-2		87-3		87-4	
	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT
AT&T:	734,616	66.8%	793,906	67.3%	829,362	67.3%	778,298	66.8%
Others:	365,149	33.2%	386,168	32.7%	402,195	32.7%	385,981	33.2%
TOTAL	1,099,765	100.0%	1,180,074	100.0%	1,231,557	100.0%	1,164,279	100.0%

1988 By Quarter

	88-1		88-2		88-3		88-4	
	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT
AT&T:	745,998	66.8%	769,271	66.5%	799,226	63.4%	734,357	63.5%
Others:	370,304	33.2%	386,979	33.5%	461,837	36.6%	422,497	36.5%
TOTAL	1,116,302	100.0%	1,156,250	100.0%	1,261,063	100.0%	1,156,854	100.0%

1989 By Quarter

	89-1		89-2		89-3		89-4	
	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT
AT&T:	739,480	63.6%	723,666	62.1%	735,931	60.3%	729,558	58.7%
Others:	423,099	36.4%	441,181	37.9%	484,082	39.7%	513,372	41.3%
TOTAL	1,162,579	100.0%	1,164,847	100.0%	1,220,013	100.0%	1,242,930	100.0%

1990 By Quarter

	90-1		90-2		90-3		90-4	
	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT	MOU	PERCENT
AT&T:	714,320	58.1%	756,512	57.4%				
Others:	515,524	41.9%	562,331	42.6%				
TOTAL	1,229,844	100.0%	1,318,843	100.0%				

Source: Local Exchange Carrier Questionnaire issued by Commission staff to all the Texas local exchange carriers.

Exhibit II-F

NUMBER OF OTHER COMMON CARRIERS
SERVING CUSTOMERS OF TEXAS LECs
(as of June 30, 1990)

Company Name	Number of IXCs Other than AT&T	Number of IXCs Other than AT&T Serving Majority of LEC Offices
ALLTEL	0	0
BIG BEND TELEPHONE COMPANY	0	0
BRAZORIA TELEPHONE COMPANY	2	2
BRAZOS TELEPHONE COMPANY	0	0
BYERS-PETROLIA TELEPHONE CO.	0	0
CADDOAN TELEPHONE COMPANY	N.A.	N.A.
CAMERON TELEPHONE COMPANY	0	0
CAP ROCK TELEPHONE COMPANY, INC,	0	0
CENTEL	18	0
CENTRAL TEXAS TELEPHONE COOPERATIVE	0	0
COLEMAN COUNTY TELEPHONE COOPERATIVE	0	0
COLORADO VALLEY TELEPHONE COOP.	0	0
COMANCHE COUNTY TELEPHONE CO., INC.	0	0
COMMUNITY TELEPHONE COMPANY, INC.	0	0
CONTEL OF TEXAS, INC.	30	11
CUMBY TELEPHONE COOPERATIVE, INC.	0	0
E.N.M.R. TELEPHONE COOPERATIVE	0	0
EASTEX TELEPHONE COOPERATIVE, INC.	0	0
ELECTRA TELEPHONE COMPANY	0	0
ETEX TELEPHONE COOPERATIVE, INC.	0	0
FIVE AREA TELEPHONE COOP., INC.	0	0
GANADO TELEPHONE COMPANY, INC.	0	0
GTE SOUTHWEST, INC.	118	6
FORT BEND TELEPHONE COMPANY	11	11
GUADALUPE VALLEY TELEPHONE COOP.	15	11
HILL COUNTRY TELEPHONE COOP., INC.	0	0
INDUSTRY TELEPHONE COMPANY	0	0
KERRVILLE TELEPHONE COMPANY, INC.	13	13
LA WARD TELEPHONE EXCHANGE, INC.	0	0
LAKE DALLAS TELEPHONE COMPANY, INC.	0	0
LUFKIN-CONROE TELEPHONE EXCHANGE	1	0
MID-PLAINS RURAL TELEPHONE COOP.	0	0
MUSTANG TELEPHONE COMPANY	0	0
PANHANDLE TELEPHONE COOP., INC.	3	1
PEOPLES TELEPHONE COOP., INC.	0	0
POKA LAMBRO TELEPHONE COOP., INC.	0	0
RIVIERA TELEPHONE COMPANY, INC.	0	0
SAN MARCOS TELEPHONE COMPANY	10	10
SOUTH PLAINS TELEPHONE COOP., INC.	0	0
SOUTHWEST ARKANSAS TELEPHONE COOP.	0	0
SOUTHWEST TEXAS TELEPHONE COMPANY	0	0
SOUTHWESTERN BELL TELEPHONE COMPANY	128	10
SUGAR LAND TELEPHONE COMPANY	15	15
TATUM TELEPHONE COMPANY	0	0
TAYLOR TELEPHONE COOP., INC.	0	0
TEXAS ALLTEL	0	0
TRI-COUNTY TELEPHONE COMPANY	0	0
UNITED TELEPHONE COMPANY OF TEXAS	0	0
VALLEY TELEPHONE COOP., INC.	0	0
WATERWOOD COMMUNICATIONS, INC.	0	0
WES-TEX TELEPHONE COOP., INC.	0	0
WEST TEXAS RURAL TELEPHONE COOP.	0	0
XIT RURAL TELEPHONE COOP., INC.	11	11

N.A. Data not available.

Source: Texas Public Utility Commission
Local Exchange Company Data Report

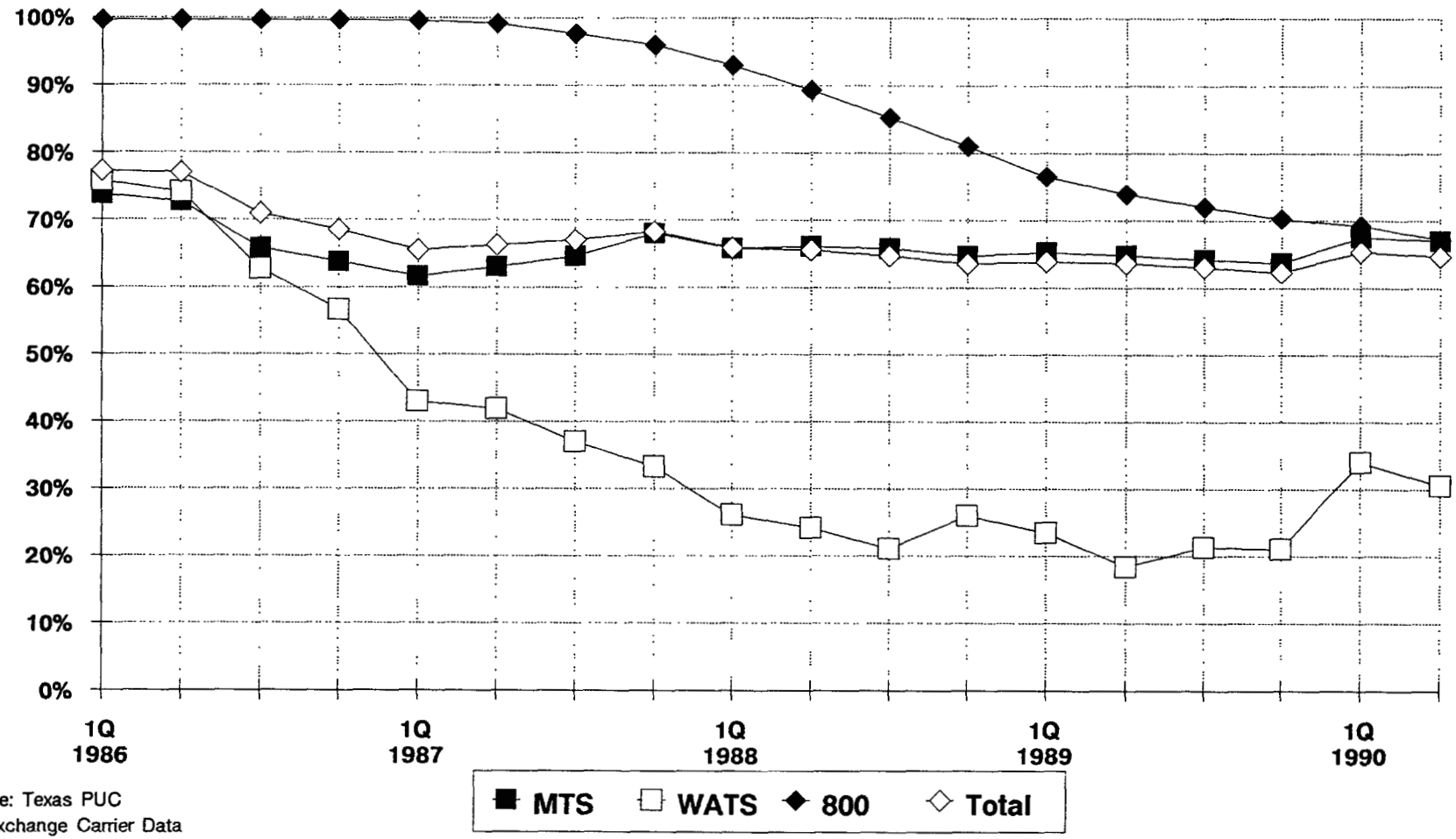
EQUAL ACCESS DATA
Texas Local Exchange Companies
(as of June 30, 1990)

Company Name	Number of End Offices	Number of Equal Access End Offices	Percent Equal Access Offices
ALLTEL	5	0	0.0%
BIG BEND TELEPHONE COMPANY	14	0	0.0%
BRAZORIA TELEPHONE COMPANY	2	0	0.0%
BRAZOS TELEPHONE COMPANY	5	0	0.0%
BYERS-PETROLIA TELEPHONE CO.	2	0	0.0%
CADDOAN TELEPHONE COMPANY	8	0	0.0%
CAMERON TELEPHONE COMPANY	2	0	0.0%
CAP ROCK TELEPHONE COMPANY, INC,	10	0	0.0%
CENTEL	48	31	64.6%
CENTRAL TEXAS TELEPHONE COOPERATIVE	15	0	0.0%
COLEMAN COUNTY TELEPHONE COOPERATIVE	5	0	0.0%
COLORADO VALLEY TELEPHONE COOP.	6	0	0.0%
COMANCHE COUNTY TELEPHONE CO., INC.	8	0	0.0%
COMMUNITY TELEPHONE COMPANY, INC.	6	0	0.0%
CONTEL OF TEXAS, INC.	183	1	0.5%
CUMBY TELEPHONE COOPERATIVE, INC.	1	0	0.0%
E.N.M.R. TELEPHONE COOPERATIVE	3	0	0.0%
EASTEX TELEPHONE COOPERATIVE, INC.	21	0	0.0%
ELECTRA TELEPHONE COMPANY	1	0	0.0%
ETEX TELEPHONE COOPERATIVE, INC.	7	0	0.0%
FIVE AREA TELEPHONE COOP., INC.	6	0	0.0%
GANADO TELEPHONE COMPANY, INC.	1	0	0.0%
GTE SOUTHWEST, INC.	319	173	54.2%
FORT BEND TELEPHONE COMPANY	9	9	100.0%
GUADALUPE VALLEY TELEPHONE COOP.	14	14	100.0%
HILL COUNTRY TELEPHONE COOP., INC.	15	0	0.0%
INDUSTRY TELEPHONE COMPANY	3	0	0.0%
KERRVILLE TELEPHONE COMPANY, INC.	4	0	0.0%
LA WARD TELEPHONE EXCHANGE, INC.	3	0	0.0%
LAKE DALLAS TELEPHONE COMPANY, INC.	1	0	0.0%
LUFKIN-CONROE TELEPHONE EXCHANGE	16	0	0.0%
MID-PLAINS RURAL TELEPHONE COOP.	9	0	0.0%
MUSTANG TELEPHONE COMPANY	1	0	0.0%
PANHANDLE TELEPHONE COOP., INC.	1	1	100.0%
PEOPLES TELEPHONE COOP., INC.	9	0	0.0%
POKA LAMBRO TELEPHONE COOP., INC.	15	0	0.0%
RIVIERA TELEPHONE COMPANY, INC.	3	0	0.0%
SAN MARCOS TELEPHONE COMPANY	1	0	0.0%
SOUTH PLAINS TELEPHONE COOP., INC.	16	0	0.0%
SOUTHWEST ARKANSAS TELEPHONE COOP.	1	0	0.0%
SOUTHWEST TEXAS TELEPHONE COMPANY	6	0	0.0%
SOUTHWESTERN BELL TELEPHONE COMPANY	569	365	64.1%
SUGAR LAND TELEPHONE COMPANY	11	11	100.0%
TATUM TELEPHONE COMPANY	1	0	0.0%
TAYLOR TELEPHONE COOP., INC.	14	0	0.0%
TEXAS ALLTEL	26	0	0.0%
TRI-COUNTY TELEPHONE COMPANY	1	0	0.0%
UNITED TELEPHONE COMPANY OF TEXAS	59	3	5.1%
VALLEY TELEPHONE COOP., INC.	17	0	0.0%
WATERWOOD COMMUNICATIONS, INC.	1	0	0.0%
WES-TEX TELEPHONE COOP., INC.	10	0	0.0%
WEST TEXAS RURAL TELEPHONE COOP.	9	0	0.0%
XIT RURAL TELEPHONE COOP., INC.	7	0	0.0%

Source: Texas Public Utility Commission
Local Exchange Company Data Report

AT&T MARKET SHARE PERCENTAGE

Texas Intrastate Revenues



Source: Texas PUC Interexchange Carrier Data Reports

Exhibit II-H

IMPACT OF RULE 23.25 AMENDMENTS ON OPERATOR SERVICE RATES

	Minimum	Benchmark (Current Rate)	Maximum
Operator Services Surcharges			
Directory Assistance	n.a.	$.40	$.50
Operator station-to-station:			
Dialed	$1.16	$1.55	$1.55
0-	1.16	1.55	1.86
Dial calling card station-to-station	.79	1.05	1.05
Person-to-person	1.99	2.65	3.18
Conference service surcharges:			
Set-up charge per service point	n.a.	1.75	2.10
Automated conference bridge arrangement charge	n.a.	35.00	42.00
Conference Service Per-minute Charges			
Bridge port usage charge	.20	.25	.30

Charge per service point (based on mileage between most distant service points)	Current Rates	Rates Under New Rule
0-17 miles	.05	*
18-66 miles	.10	*
Over 66 miles	.15	*

* Under the amended version of the rule, the per-minute charges will be obtained from the appropriate MTS rate schedule.

Non-reporting Interexchange Carriers (as of January 3, 1991)

A.B. Network
Advanced Telecommunications Corporation (ATC)
Affinity Network, Inc.
American Central Corporation
American Long Distance
American Network Exchange
American Public Communications, Inc.
American Telenet Systems, Inc.
Amerifax, Inc.
Ascom Telenetwork
Austin Bestline
Automated Long Distance Services, Inc.
Bramtel
Brazosport Telephone Company
Capital Network System, Inc.
Centel Network Communications, Inc.
Century Network, Inc.
Communications Transmission, Inc.
ComTel Computer Corp.
Contel ASC
Contel-TMC
CPi, Inc.
Cypress Telecommunications
Digital Network, Inc.
Dime Fone, Inc.
Econo-Call of El Paso, Inc.
Electra Communications
Fiber Long Distance Corporation
Fiberline Network Communications, Limited Partnership
First Fone Long Distance
Fone America, Inc.
Gateway Technologies
Hart Communications
Highland Communications, Inc.
Huntsville Long Distance Company
Innovative Ideas, Inc.
Insinc Corporation
International Telecharge, Inc.
Lake Livingston Telephone Co., Inc. (Wisconsin)
Leonard Communications, Inc.
Lone Star Telecom, Inc.
Long Distance Network Operator Services, Inc.
Long Distance Savers - Longview, Inc.
Mercury Long Distance
Metro-Link Telecom, Inc.
MetroLine, Inc.
Metropolitan Fiber Systems of Houston, Inc.
National Telecommunications
National Telephone Services, Inc.
National Teleservices Company, Inc.
NCN Communications, Inc.

Network Services, Inc.
OCC Communications Corp.
Online Network, Inc.
Operator Service Company
Payline Systems, Inc.
Phonoscope
Revcom Communications, Inc.
Sharenet Corporation
Spectranet, Inc.
STS Telecommunications
Star Tel, Inc.
Sun-Net, Inc.
Tel Net, Inc.
Tel-Com Long Distance
TelAmerica Network Services, Inc.
TelAmerica, Inc.
Teleconnect Long Distance Services & Systems Co.
Telesphere Network, Inc.
Telvue Corporation
Texustel, Inc.
TMC/America, Inc.
Transamerica Telecommunications, Inc.
Tri*Tel Communications of El Paso
Tri-J Enterprises, Inc.
U. S. Operators, Inc.
Universal Telephone Network
Valley WATS
Valu-Line of Angleton
Valu-Line of Brazosport
Westel, Inc.

TEXAS - LOCAL EXCHANGE CARRIERS RATES AND NUMBER OF ACCESS LINES
(December 1990)

TELEPHONE COMPANY	ACCESS LINES	ONE-PARTY RES. RATE*	ONE-PARTY BUS. RATE*
Alenco Communications, Inc.	459	$ 7.50	$12.50
Alltel Texas, Inc.	3,156	$ 5.60	$12.00
Big Bend Telephone Company of Texas	2,911	$ 7.00-117.00	$ 9.50-117.00
Blossom Telephone Company	1,106	$ 7.00	$ 9.00
Brazoria Telephone Company	4,885	$10.00- 17.00	$18.50- 25.00
Brazos Telephone Cooperative	1,068	$ 6.15	$ 9.65
Byers-Petrolia Telephone Company	755	$ 8.50	$15.00
Cameron Telephone Company	950	$ 5.90	$11.00
Cap Rock Telephone Company	2,274	$ 9.40- 12.15	$15.40- 17.90
Central Telephone Company	128,741	$ 5.00- 17.40	$15.60- 43.55
Central Texas Telephone Cooperative	3,479	$ 7.90	$11.65
Coleman County Telephone Cooperative	1,758	$ 6.65	$10.40
Colorado Valley Telephone Cooperative	5,090	$ 8.40	$14.40
Comanche County Telephone Company	4,861	$ 7.40	$10.90
Community Telephone Company	1,453	$ 7.40- 9.15	$10.90- 13.15
Continental Telephone Company of Texas	164,906	$ 8.10- 9.60	$19.30- 20.80
Cumby Telephone Cooperative	571	$ 6.70	$11.40
Dell Telephone Cooperative	466	$15.40	$21.40
Eastex Telephone Cooperative	20,414	$ 6.40- 7.15	$ 9.90- 10.65
Electra Telephone Company	1,770	$ 5.90	$11.90
ENMR Telephone Cooperative	739	$12.00- 13.00	$16.50- 17.50
Etex Telephone Cooperative	9,170	$ 7.05- 7.50	$13.20- 14.20
Five Area Telephone Cooperative	1,442	$16.60- 17.10	$32.35- 33.25
Fort Bend Telephone Company	17,322	$ 8.25- 11.00	$16.00- 17.00
GTE Southwest	1,164,284	$ 7.10- 7.65**	$18.35- 19.95**
Ganado Telephone Company	1,248	$ 7.40	$13.40
Guadalupe Valley Telephone Cooperative	15,671	$ 7.25- 7.75	$10.50- 11.00
Hill Country Telephone Cooperative	9,177	$ 6.25- 9.50	$ 9.50- 15.00
Industry Telephone Company	1,492	$ 9.00- 9.75	$13.75- 15.00
Kerrville Telephone Company	14,660	$ 6.80	$17.50
Knippa Telephone Company	238	$ 7.20	$ 7.20
Lake Dallas Telephone Company	4,464	$ 6.90	$14.40
Lake Livingston Telephone Company	939	$ 6.65	$ 6.65
LaWard Telephone Exchange	857	$ 7.80	$15.65
Lipan Telephone Company	816	$ 7.20- 8.50	$11.25- 12.70
Livingston Telephone Company	4,321	$ 5.65	$11.40
Lufkin-Conroe (Alto) Telephone Exchange (Pending Docket # 8773)	60,664	$ 5.35- 6.65	$ 9.60- 15.30
Mid-Plains Rural Telephone Cooperative	2,078	$13.25- 13.75	$25.55- 26.55
Muenster Telephone Cooperative	2,663	$ 7.00- 8.25	$14.00- 15.25
Mustang Telephone Company	2,488	$ 5.90	$11.40
Panhandle Telephone Cooperative	35	$ 7.95- 11.45	$12.45- 17.45
Peoples Telephone Cooperative	6,895	$ 7.95- 8.20	$15.90- 16.40
Poka-Lambro Rural Telephone Cooperative	3,604	$ 5.45- 9.35	$ 9.95- 16.40
Rivera Telephone Company	815	$ 8.90	$17.40
Romain Telephone Company	970	$ 8.15	$14.15

TELEPHONE COMPANY	ACCESS LINES	ONE-PARTY RES.RATES*	ONE-PARTY BUS.RATES*
San Marcos Telephone Company	19,396	$ 5.70	$12.50
Santa Rosa Cooperative	1,545	$ 7.50	$11.50
South Plains Telephone Cooperative	3,624	$ 7.90- 10.65	$12.40- 16.90
Southwest Arkansas Telephone Cooperative	395	$10.75	$19.25
Southwest Texas Telephone Company	2,577	$11.35-103.40*	$20.35-103.40*
Southwestern Bell Telephone Company	6,616,232	$ 8.15- 11.05	$19.15- 28.25
Sugar Land Telephone Company	30,914	$16.15	$44.40
Tatum Telephone Exchange	690	$ 5.40	$ 8.40
Taylor Telephone Cooperative	5,116	$ 7.40- 8.40	$ 8.40- 12.90
Texas Midland Telephone Company	10,119	$ 6.40- 8.40	$11.15- 16.65
Tri-County Telephone Company	780	$ 5.60	$11.35
Trinity Valley Telephone Company	5,107	$ 6.65	$16.65
United Telephone Company of Texas	108,364	$ 6.15- 8.25	$14.45- 18.90
Valley Telephone Cooperative	4,368	$10.65- 12.65	$14.15- 16.15
Waterwood Communications	368	$ 9.30	$18.60
Wes Tex Telephone Cooperative	3,036	$ 5.90- 10.65	$10.40- 13.40
West Texas Rural Telephone Cooperative	3,204	$11.00	$17.25
XIT Rural Telephone Cooperative	1,050	$13.40	$19.40

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* If more than one rate is applicable within a company's service area, a rate range is listed.

** In certain GTE Exchanges, non-optional EAS additives ranges from $1.10 to $7.25 for residences and from $2.95 to $19.00 for businesses.

Exhibit III-B

POPULATION DATA
Texas Local Exchange Carriers
(as of June 30, 1990)

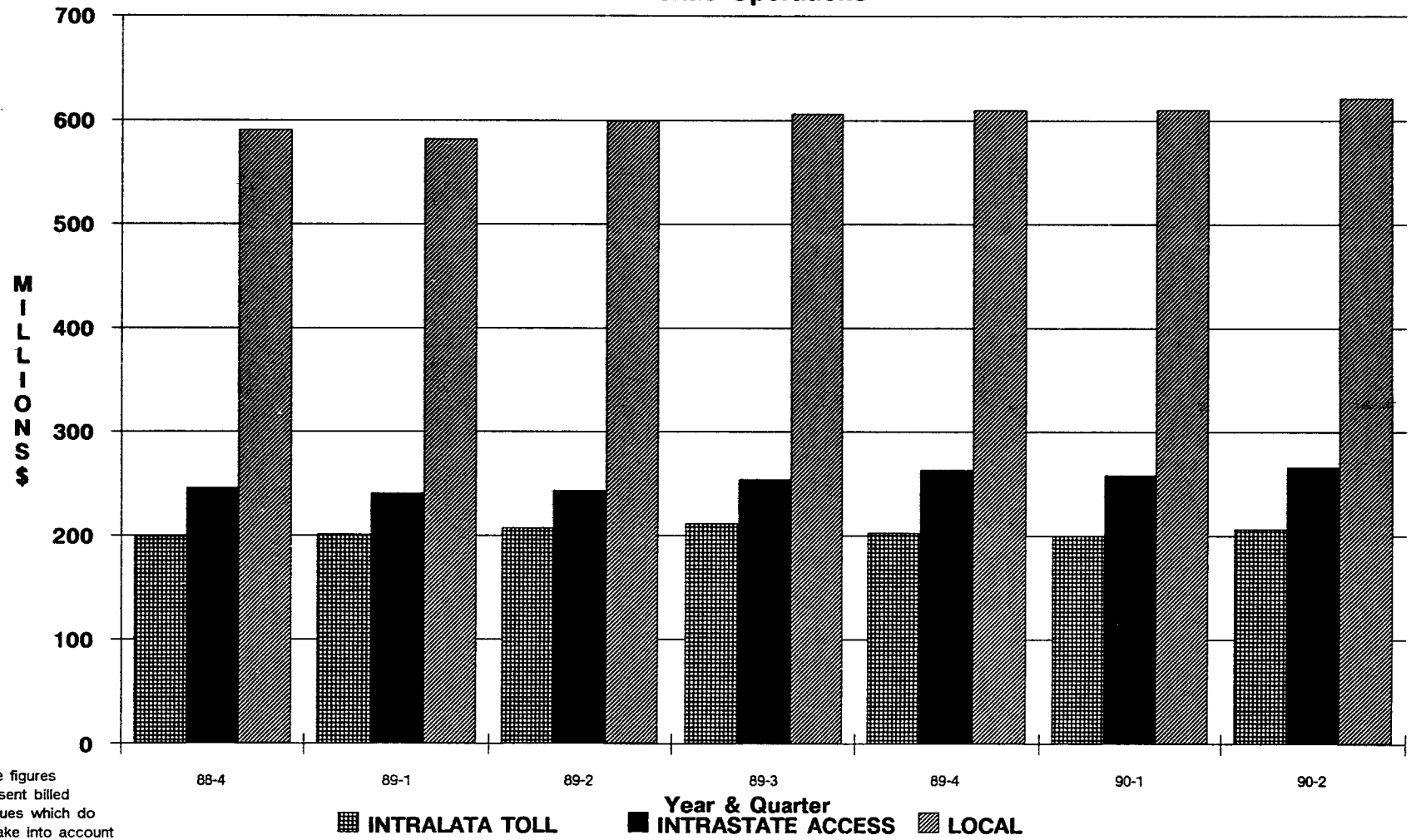
Company Name	Average Population of Largest Cities in Service Area
ALLTEL	740
BIG BEND TELEPHONE COMPANY	1,402
BRAZORIA TELEPHONE COMPANY	3,025
BRAZOS TELEPHONE COMPANY	120
BYERS-PETROLIA TELEPHONE CO.	600
CADDOAN TELEPHONE COMPANY	5,000
CAMERON TELEPHONE COMPANY	367
CAP ROCK TELEPHONE COMPANY, INC,	900
CENTEL	34,460
CENTRAL TEXAS TELEPHONE COOPERATIVE	258
COLEMAN COUNTY TELEPHONE COOPERATIVE	1,510
COLORADO VALLEY TELEPHONE COOP.	100
COMANCHE COUNTY TELEPHONE CO., INC.	1,133
COMMUNITY TELEPHONE COMPANY, INC.	213
CONTEL OF TEXAS, INC.	10,260
CUMBY TELEPHONE COOPERATIVE, INC.	7
E.N.M.R. TELEPHONE COOPERATIVE	1,354
EASTEX TELEPHONE COOPERATIVE, INC.	817
ELECTRA TELEPHONE COMPANY	3,038
ETEX TELEPHONE COOPERATIVE, INC.	953
FIVE AREA TELEPHONE COOP., INC.	50
GANADO TELEPHONE COMPANY, INC.	1,800
GTE SOUTHWEST, INC.	125,740
FORT BEND TELEPHONE COMPANY	2,925
GUADALUPE VALLEY TELEPHONE COOP.	1,900
HILL COUNTRY TELEPHONE COOP., INC.	1,149
INDUSTRY TELEPHONE COMPANY	233
KERRVILLE TELEPHONE COMPANY, INC.	9,400
LA WARD TELEPHONE EXCHANGE, INC.	200
LAKE DALLAS TELEPHONE COMPANY, INC.	2,925
LUFKIN-CONROE TELEPHONE EXCHANGE	13,840
MID-PLAINS RURAL TELEPHONE COOP.	500
MUSTANG TELEPHONE COMPANY	2,196
PANHANDLE TELEPHONE COOP., INC.	N.A.
PEOPLES TELEPHONE COOP., INC.	350
POKA LAMBRO TELEPHONE COOP., INC.	413
RIVIERA TELEPHONE COMPANY, INC.	N.A.
SAN MARCOS TELEPHONE COMPANY	36,900
SOUTH PLAINS TELEPHONE COOP., INC.	600
SOUTHWEST ARKANSAS TELEPHONE COOP.	400
SOUTHWEST TEXAS TELEPHONE COMPANY	560
SOUTHWESTERN BELL TELEPHONE COMPANY	904,460
SUGAR LAND TELEPHONE COMPANY	6,736
TATUM TELEPHONE COMPANY	1,320
TAYLOR TELEPHONE COOP., INC.	560
TEXAS ALLTEL	1,380
TRI-COUNTY TELEPHONE COMPANY	775
UNITED TELEPHONE COMPANY OF TEXAS	13,700
VALLEY TELEPHONE COOP., INC.	680
WATERWOOD COMMUNICATIONS, INC.	N.A.
WES-TEX TELEPHONE COOP., INC.	875
WEST TEXAS RURAL TELEPHONE COOP.	2,661
XIT RURAL TELEPHONE COOP., INC.	500

N.A. Data not available.

Source: Texas Public Utility Commission
Local Exchange Company Data Report

LOCAL EXCHANGE CARRIER REVENUES

Texas Operations



These figures represent billed revenues which do not take into account settlements from the intrastate toll pool.

Exhibit III-C

Percentage of Households with Telephone Service

	July 1988	Nov. 1988	March 1989	July 1989	Nov. 1989	March 1990
United States	92.8%	92.5%	93.0%	93.3%	93.0%	93.3%
Alabama	86.5%	86.9%	90.4%	89.8%	86.9%	88.4%
Alaska	88.2%	87.3%	84.1%	88.3%	87.9%	89.9%
Arizona	91.2%	90.2%	90.5%	91.9%	92.4%	91.1%
Arkansas	87.5%	87.3%	84.0%	89.5%	88.9%	88.4%
California	94.0%	94.5%	94.6%	95.5%	94.8%	94.4%
Colorado	94.1%	92.2%	96.0%	93.6%	94.2%	93.9%
Connecticut	97.6%	94.8%	97.4%	98.4%	98.6%	97.3%
Delaware	97.4%	96.3%	95.3%	97.3%	97.4%	95.8%
Dist. of Col.	94.4%	96.1%	95.1%	91.0%	92.0%	92.9%
Florida	92.8%	92.2%	91.7%	93.1%	93.8%	92.3%
Georgia	90.4%	88.4%	90.5%	90.8%	89.3%	90.7%
Hawaii	92.2%	95.9%	95.9%	92.9%	96.4%	96.7%
Idaho	91.9%	91.9%	92.3%	92.5%	92.8%	93.1%
Illinois	94.0%	94.1%	94.5%	93.2%	93.9%	94.5%
Indiana	92.8%	92.8%	93.4%	94.2%	92.1%	92.3%
Iowa	96.6%	95.1%	97.1%	95.4%	96.5%	97.1%
Kansas	94.0%	93.9%	94.6%	94.2%	94.4%	95.6%
Kentucky	86.8%	86.3%	89.5%	89.0%	88.3%	90.4%
Louisiana	87.8%	87.3%	90.5%	88.3%	86.9%	90.4%
Maine	93.5%	94.7%	95.0%	95.8%	94.9%	96.5%
Maryland	96.0%	95.4%	96.0%	94.4%	94.5%	95.4%
Massachusetts	97.1%	96.4%	96.6%	97.7%	97.0%	96.6%
Michigan	93.6%	93.8%	94.4%	94.3%	92.6%	94.1%
Minnesota	97.3%	97.1%	96.7%	95.7%	98.0%	96.5%
Mississippi	83.7%	82.5%	84.4%	85.6%	86.6%	87.5%
Missouri	95.5%	92.0%	90.9%	91.2%	90.9%	91.9%
Montana	91.5%	92.3%	92.6%	90.1%	92.3%	91.7%
Nebraska	95.3%	94.6%	96.1%	96.1%	93.4%	95.8%
Nevada	92.6%	93.0%	91.5%	93.1%	93.5%	94.1%
New Hampshire	94.8%	94.5%	95.9%	96.4%	94.0%	95.9%
New Jersey	94.8%	94.1%	94.9%	94.5%	95.1%	95.5%
New Mexico	85.5%	85.6%	86.9%	85.5%	85.0%	86.5%
New York	91.6%	92.5%	93.1%	92.1%	91.8%	90.6%
N. Carolina	91.2%	89.9%	92.0%	91.9%	91.8%	92.3%
N. Dakota	95.8%	97.9%	96.5%	97.5%	97.0%	96.7%
Ohio	95.1%	94.0%	94.4%	95.4%	94.2%	95.9%
Oklahoma	87.4%	89.6%	86.7%	89.2%	88.7%	90.4%
Oregon	94.4%	92.2%	89.5%	94.2%	93.0%	92.8%
Pennsylvania	96.8%	95.7%	96.8%	96.9%	97.2%	96.7%
Rhode Island	94.4%	96.5%	95.3%	96.9%	94.0%	94.8%
S. Carolina	87.4%	89.7%	87.2%	88.8%	87.4%	89.6%
S. Dakota	92.9%	93.7%	93.3%	93.7%	92.8%	94.4%
Tennessee	90.4%	88.8%	92.8%	91.3%	91.6%	92.1%
Texas	89.1%	88.5%	87.8%	88.8%	89.8%	90.0%
Utah	91.4%	93.1%	95.9%	95.6%	96.3%	96.5%
Vermont	95.4%	95.6%	95.7%	93.4%	92.7%	96.8%
Virginia	91.4%	92.5%	92.4%	93.1%	94.0%	93.4%
Washington	95.2%	94.2%	96.5%	97.6%	95.1%	97.2%
W. Virginia	85.8%	88.4%	87.7%	84.3%	88.4%	88.6%
Wisconsin	97.2%	98.0%	96.8%	97.7%	97.5%	96.5%
Wyoming	94.3%	91.3%	95.3%	93.8%	91.8%	95.1%

Source: U.S. Department of Commerce, Bureau of the Census